



5-2015

Two Essays on the Effects of External Pressure on Executive Compensation: Evidenced Through Political Sensitivity and Pay for Performance Disclosure

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Recommended Citation

Hadley, Brandy Elaine, "Two Essays on the Effects of External Pressure on Executive Compensation: Evidenced Through Political Sensitivity and Pay for Performance Disclosure." PhD diss., University of Tennessee, 2015.
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To the Graduate Council:

I am submitting herewith a dissertation written by Brandy Elaine Hadley entitled "Two Essays on the Effects of External Pressure on Executive Compensation: Evidenced Through Political Sensitivity and Pay for Performance Disclosure." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

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**Two Essays on the Effects of External Pressure on Executive
Compensation:
Evidenced Through Political Sensitivity and Pay for Performance
Disclosure**

**A Dissertation Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville**

**Brandy Elaine Hadley
May 2015**

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DEDICATION

This dissertation is lovingly dedicated to my family. Without the support, encouragement, and sacrifice of my incredible husband, Preston, and our amazing children, Joey and Cloey, this would not have been possible. Without the inspiration and hope instilled in me by my Dad, Jim, my mom, Sherry, and my grandmother, Mary, I may not have learned to strive for my dreams. Finally, I'm eternally grateful to my husband's sweet family, Dennis & Alice and Phil & Sandy, for their infinite kindness.

ACKNOWLEDGEMENTS

I am extremely grateful to the chair of my dissertation committee, Dr. Tracie Woidtke, whose generous guidance, encouragement, and mentorship have enabled me to complete my dissertation.

I also thank my committee members, Dr. Andy Puckett, Dr. Larry Fauver, and Dr. Bruce Behn, for their valuable time, insights, and assistance.

In addition, I thank Dr. Mara Faccio and participants of the 2014 FMA Doctoral Consortium for their comments and suggestions.

Finally, I am very grateful for the financial support provided by the Finance Department, the Haslam College of Business, and University of Tennessee.

ABSTRACT

This dissertation analyzes the impact of two external forces on executive compensation behavior. In the first chapter, the impact of political sensitivity is investigated as an external force on government contractor executive compensation. Compensation for top executives has come into the political spotlight, especially over the last decade, with many politicians publicly supporting limits on compensation. However, the impact of political scrutiny to limit compensation is debatable. This study analyzes the effect of political scrutiny on CEO compensation using a sample of Federal contractors, which represents a group of firms where politicians yield the most power. Results suggest that Federal contractors with the most visible government contracts that make up significant portions of their revenue have lower CEO compensation, but the efficiency of this compensation structure is debatable as it leaves CEOs with weaker incentives. However, the impact of political sensitivity is muted when the firm has more bargaining power with the government.

In the second chapter, the effects of external forces of mandated compensation disclosure and shareholding voting requirements on compensation behavior are examined. Given the lack of guidelines provided for Dodd-Frank mandated Pay for Performance disclosure and the increase in alternative pay definitions used in Pay for Performance discussions, this chapter analyzes the determinants of and the effects on Say on Pay support of disclosing alternative pay measures. Results suggest that firms that disclose alternative pay measures in their Pay for Performance discussions do so for different reasons. Although certain measures are characteristic of opportunistic disclosure and others are indicative of informative disclosure, effects on Say on Pay are similar yet distinct. There is often a significant positive impact of disclosing additional information related to compensation on Say on Pay approval, particularly when combating prior poor Say on Pay support. However, the positive impact on Say on Pay support is most robust when peer comparisons are shared, providing evidence of the value of reporting comparative pay.

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INTRODUCTION

Executive Compensation

CEO compensation has attracted significant attention by researchers, media, and practitioners in recent years and as stated by Ken Sweet in the Associated Press (2013), "CEO pay remains a divisive issue in the U.S" (Murphy, 1999; Core, Holthausen, & Larcker, 1999; Core, Guay, & Larcker, 2008; Frydman, 2010; Armstrong, Ittner, & Larcker, 2012).

Theory

Division arises due to mixed views regarding the appropriateness of executive pay. Agency theory suggests that executive compensation is a mechanism which can reduce agency problems when set effectively to incentivize managers to act in shareholders' interests (Jensen and Meckling, 1976). In addition, Fama (1980) posits that the competitive labor market, through the threat of termination and replacement, offers the only incentive necessary for directors and executives to act in the best interest of shareholders. Combining these views, many argue compensation is simply a result of efficient contracting in a competitive labor market in which compensation is viewed as being directly tied to a key set of economic determinants (Gabaix & Landier, 2008; Kaplan, 2008; Kaplan, 2012; Gabaix, Landier, & Sauvagnat, 2014).

However, others have claimed that the compensation-setting process is also greatly affected by managers with too much power over their boards and their own pay (Bertrand & Mullainathan, 2001; Bebchuk & Fried, 2003; 2004; Frydman and Jenter, 2010; Cianci, Fernando, & Werner, 2012; Murphy, 2013). Specifically, it has been proffered that CEO compensation in excess of that justified by standard economic determinants is driven by CEO rent extraction (Core, Holthausen, & Larcker, 1999; Core, Guay, & Larcker, 2008). Essentially, many agree that the power the CEO has over the board of directors can result in costly agency costs for the firm and its shareholders in the form of excess compensation.

External Monitoring of Executive Compensation

The literature has shown that firm corporate governance can greatly impact the monitoring of compensation and such agency costs (Boyd, 1994; Yermack, 1996; Core, Holthausen, & Larcker, 1999; Cyert, Kang, & Kumar, 2002; Hartzell & Starks, 2003; Faleye, 2007). Armstrong et al. (2012) summarize that "many directors' lack of incentives, skills, or available time to adequately scrutinize proposed CEO pay packages, give CEOs in firms with weak governance considerable influence over the pay-setting process and compensation outcomes." In addition to the impact of corporate

governance on compensation, evidence of other compensation controls and monitoring mechanisms have been provided. Jensen and Murphy (1990) propose that “public and private political forces” also impose constraints on compensation and wealth-performance sensitivity. Murphy (1999) adds to this and states that “third parties such as rank-and-file employees, labor unions, consumer groups, Congress, and the media affect the type of contracts written between management and shareholders.” Also, most recently, Congress has enabled shareholders to directly voice their concerns over executive compensation through Say on Pay voting. This dissertation further examines the impact of political forces and Say on Pay voting on executive compensation outcomes.

Political Sensitivity

Empirical evidence of political constraints on compensation has been provided in the context of influences due to media, regulatory, and union pressures.¹ Joskow, Rose, and Wolfram (1996) most directly examine the impact of regulatory pressure on compensation and find that CEOs of electric companies under greater political pressure receive lower compensation suggesting that political pressures constrain the pay levels of top executives in heavily regulated industries. The authors conclude, “Economic regulation appears to provide an effective mechanism through which public concerns about executive compensation can be translated into political and regulatory actions, and ultimately into reduced CEO pay.” The first chapter of this dissertation further examines the impact of political pressure and scrutiny on executive compensation through government contractor firms’ political sensitivity and visibility that arises due to their customer-supplier relationships with the federal government. The political cost hypothesis proffers that firms subject to government scrutiny take actions to deflect potential negative government reactions which can result in increased political costs for the firm (Watts & Zimmerman, 1986). This study considers whether the political sensitivity of firms that rely on government contracts has an effect on corporate executive compensation behavior, specifically levels of excess executive compensation, compensation composition, and wealth-performance sensitivity.

Pay for Performance Disclosure and Alternative Measures of Pay

In addition to external forces impacting compensation, Congress has enabled shareholders to directly express their support or lack of support for executive

¹ For evidence of constraints on compensation due to media pressure, see Core, Guay, & Larcker, 2008. For evidence of constraints due to regulatory pressure, see Joskow, Rose, & Wolfram, 1996; Palia, 2000; Bryan & Hwang, 1997; Wolfram, 1998; Hadlock, Lee, & Parrino, 2002; Holden & Jolls, 2008; and Cunat & Guadalupe, 2009. For evidence of compensation constraints due to union pressure, see Jensen & Murphy, 1990; DeAngelo & DeAngelo, 1991; Gomez & Tzioumis, 2006; and Jiang, Lie, & Que, 2010.

compensation through Say on Pay voting. In 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act mandated the implementation of Say on Pay, a non-binding shareholder advisory vote on approval of executive compensation as disclosed in the underlying proxy statement.² Supplemental to Say on Pay, Section 953 of Dodd-Frank legislation states that firms are required to disclose “information that shows the relationship between executive compensation actually paid and the financial performance of the issuer.” Although Dodd Frank requires firms to provide Pay for Performance disclosure, this has not yet been clarified and mandated by the SEC. The second chapter of this dissertation explores the determinants of reporting alternative pay measures that have propagated in proxy reporting in response to Dodd Frank legislation and the incentive it creates for firms to persuade shareholders that pay presented in the proxy statement appropriately reflects corporate performance. This study also examines the impact on Say on Pay outcomes of reporting common alternative pay measures in Pay for Performance discussions.

² Although these are non-binding votes, there are potential repercussions. Negative vote outcomes may lead to increased attention from investors, proxy advisor services, and the popular press (Ferri and Maber, 2013). In addition, failing say on pay can result in shareholder initiated lawsuits, risk of loss of re-election for directors, and ultimately changes to executive compensation (Larcker, McCall, & Tayan 2011; Illiev and Vitanova 2013; Ertimur, Muslu, and Ferri 2011).

CHAPTER I
EXECUTIVE COMPENSATION AND POLITICAL SENSITIVITY:
EVIDENCE FROM GOVERNMENT CONTRACTORS

Abstract

Using federal contractor data, this paper examines the political costs hypothesis through the impact of government scrutiny and political sensitivity on executive compensation. The political cost hypothesis proffers that firms subject to government scrutiny take actions to deflect potential negative government reactions which can result in increased political costs for the firm. Results suggest that government contractor firms with the most political sensitivity (i.e., firms with government contracts that are most visible and comprise significant portions of their revenue) pay lower total (and excess) compensation to their CEOs, but with larger portions of cash, leading to lower long-term CEO wealth performance sensitivity. However, politically sensitive contractors with significant bargaining power (due to concentration, competition, or political contributions), are actually paid greater excess compensation than other politically sensitive firms. These findings provide insight into the effects and limitations of additional government monitoring of executive compensation.

Introduction

In order to maximize shareholder value, firms must consider a variety of stakeholders in their decision making. When a firm maintains a supplier-customer business relationship with a government agency, a level of firm political visibility and sensitivity arises due to the stakeholder-customer position of the government. The literature on politically sensitive firms is based on the premise that the political visibility of a firm can result in greater government, media, and watchdog group scrutiny. Watts and Zimmerman (1986) first developed the political cost hypothesis based on this notion. The political cost hypothesis proffers that firms subject to government scrutiny take actions to deflect potential negative government reactions which can result in increased political costs for the firm. Using government contract data, Mills, Nutter, and Schwab (2013) extend the political cost hypothesis to the federal contractor setting and provide evidence of these political costs through their finding that the most politically sensitive contractors, those with the largest contracts that make up significant portions of their revenue, pay higher taxes. The authors conclude that this is strategic to deflect negative government attention in order to protect government contract revenues because loss of the contracts would be devastating for those firms that rely heavily on government revenue. This study extends the work of Mills et al. (2013) to consider whether the political sensitivity of firms that rely on government contracts has an effect on corporate executive compensation behavior, specifically levels of excess executive compensation, compensation composition, and wealth-performance sensitivity.

Increased political sensitivity can have an impact on executive compensation through a variety of channels. Federal union and watchdog groups are active in their oversight of government contractors and, among other initiatives, have successfully

urged support for laws reducing the cap on taxpayer-funded contracting compensation costs in recent years.³ The sentiment was explained in a quote by the Executive Director of the National Employment Law Project,⁴

“While middle-class paychecks have been stagnant for decades, and roughly 40 percent of federal contract workers are struggling to get by on less than a living wage, it is a simple matter of fairness that taxpayers should not be expected to foot the bill for exorbitant CEO salaries for private contractors.”

Groups such as the Center for Media and Democracy, the Project of Government Oversight, and the Center for Effective Government regularly criticize contractors for their compensation through press releases, disparaging comparisons, and reports such as one released in 2014 entitled, “Exposed: America’s Highest Paid Government Workers” which highlights the compensation of the CEOs of six large corporations that receive federal government contracts. When discussing the 2012 Government Accountability Office (GAO) order to review escalating executive compensation reimbursed with taxpayer dollars, Representative Tonko stated,⁵

“Reigning in the costs associated with executive compensation in federal contracts has the potential to save American taxpayers billions of dollars each year...Examining the excessive costs of executive compensation on federal contracts is a necessary oversight role of Congress in order to make more prudent and responsible decisions going forward.”

In addition, government contractors have long been the subject of many executive orders in which presidents exercise their power over a part of the economy they directly control. In 2014 alone, President Obama signed into law three executive orders related to compensation at government contractor firms. The first raises the minimum wage to \$10.10 for all employees of government contractor firms, the second bars federal contractors from retaliating against employees who discuss their pay in an attempt to close the gender pay gap, and the third requires contractors to provide compensation data based on sex and race.⁶ Executive orders like these enable presidents to bypass Congress to impose rules on a vast array of the private sector that

³ See popular press: O’Keefe & Censer (2012), Moore (2012), Mazmanian (2014), and Office of Management and Budget (2013). Prior to 12/26/13, compensation costs billed as part of government contracts were capped using a benchmarking formula. The new federal budget signed into law on 12/26/13 included a provision that caps federal reimbursement of compensation at \$487,000 annually. In 2012, the prior cap was \$952,308. Prior annual caps are published by the Office of Management and Budget.

⁴ See Center for Effective Government Press Release: “Groups Call on Congress to Rein in Excessive Compensation of Defense Department Contractors” dated 10/18/2012.

⁵ See House of Representatives Press Release, “GAO Asked to Review Escalating Executive Compensation of Federal Contractors”, dated Nov 20, 2012.

⁶ See Goldfarb (2014) and Kuhnhehn (2014) for coverage of recent executive orders directed at the compensation of government contractors.

receives taxpayer money and therefore, falls directly under the control of government mandate. In fact, the government contractor market is so expansive that it is estimated that government contractors include up to a quarter of the U.S. workforce and receive nearly half a trillion contract dollars annually.⁷

However, the effect of political sensitivity on executive compensation may be impacted by the bargaining power of the government contractor firm. According to Porter's (1980) competitive strategy theory, bargaining power is shifted from the purchaser to the supplier based on certain market conditions related to concentration and competition. Government contractor bargaining power can vary based on these same conditions. In fact, Mills et al. (2013) suggest that the bargaining power of a government contractor can increase due to the contractor being one of a limited number of qualified contractors available or due to the specialized nature of the contract itself. Specifically, the authors contend that the percentage of firm annual contracts not subject to competition⁸ proxies for the bargaining power of the government contractor firm by representing the limiting of the availability of substitutes, the increasing of switching costs, and the maximizing of the importance of the supplier's products to the government. Similarly, the percentage of firm annual defense contracts can increase the bargaining power of the contractor because defense contractors are thought to provide vital, specialized inputs that few firms have the capability to provide (Mills et al., 2013). Contractor bargaining power may also be impacted by industry concentration which can limit the availability of substitutes as well as through political campaign contributions which has been linked to increased contract awards (Witko, 2008). These sources of bargaining power may mitigate the impacts of political sensitivity by effectively shielding contract revenues.

Given the increased scrutiny surrounding compensation in recent years and the additional oversight inherent in being a government contractor, this study investigates the interaction of political sensitivity with agency theory on compensation. The purpose of this paper is to investigate the following questions. First, do politically sensitive firms that rely on government contracts pay lower levels of total and excess executive compensation to protect contract revenues and thus, their bottom line? Does the political sensitivity of a firm impact the incentive structure of its executive compensation? Finally, does a firm's bargaining power affect the impact of political sensitivity on its executive compensation behavior?

To address these questions, the analysis is performed on a sample of 4,173 federal government contractor firm-years for the years 2000 through 2011, representing

⁷ See Kuhnhehn (2014) and Ivory (2014) for estimates on the size of the government contracting workforce.

⁸ The Fedspending.org database of federal contracts identifies contracts not subject to competition as those that involved a unique supplier, required specific research and development or other expert services, were authorized by statute, were follow-on contracts, were urgent, or pertained to U.S. national security.

704 unique firms. Contracting data utilized, released under the Federal Funding Accountability and Transparency Act of 2006, is housed on Fedspending.org. Rather than reporting the total amount of a multiyear contract won during a year, the database includes federal contract awards for the amount of contract goods and services ordered and obligated by the government on an annual basis. Measures of political sensitivity and bargaining power are adapted from Mills' et al. (2013). Political sensitivity is a composite measure that incorporates both the visibility of contracts and the importance of the contracts to the contractor firm. Contract visibility is proxied for using the size or amount of firm annual government contract dollars while contract importance is proxied for using the percentage of firm annual revenues derived from federal contracts. As Mills' et al. explain, political sensitivity is defined as "the joint effect of a firm having contracts that are large enough to attract government scrutiny and important enough to the firm to motivate changes in behavior."

Based on the prior literature and its support of the costs of government scrutiny, government contractors with greater political sensitivity are predicted to pay less excess CEO compensation to deflect scrutiny that could lead to negative government reactions and the loss of contract dollars. For these firms, government scrutiny may serve as a monitoring device for executive compensation. This government monitoring may benefit shareholders by effectively reducing excess compensation or it may harm shareholders by inefficiently reducing incentive alignment between managers and shareholders. To examine these conflicting effects the impacts of increased political sensitivity on the structure of CEO compensation and on the wealth-performance sensitivity of government contractor CEOs are also examined.

Consistent with the political cost hypothesis, results suggest that government contractor firms with the most political sensitivity, that is those with the most visible government contracts that make up significant portions of their revenue, pay lower total as well as excess compensation to their CEOs. In fact, firms with the most visible contracts, i.e., those at the 90th percentile or above, pay \$1.3 million less in residual (excess) compensation than less sensitive government contractors (\$0.7M versus \$2.0M). However, residual (excess) compensation also varies greatly within the highly visible group with how important the contracts are to the firm. Moving from the 25th percentile of contract importance to the firm to the 75th percentile among contractors with the most visibility, decreases (unexplained) excess compensation (from positive to negative) by over \$1 million. In addition to lower total and excess compensation, these politically sensitive firms compensate their CEOs with larger portions of cash compensation and smaller portions of equity compensation, coupled with lower wealth-performance sensitivity.

Finally, evidence is provided that the negative relation between political sensitivity and excess executive compensation is warranted through analysis linking contracts awarded to prior excess compensation paid. This suggests that firms do, in fact, receive less contract awards when prior paid excess compensation is greater. Additional results reveal that politically sensitive firms are also effective at avoiding at least some negative attention associated with executive compensation through their Say on Pay results. Politically sensitive government contractors actually receive less

Say on Pay criticism for excess executive compensation compared with other government contractor firms, suggesting that politically sensitive government contractors are effective at structuring their compensation in a way that minimizes external criticism.

In further analysis, the impact of bargaining power on the relation between political sensitivity and executive compensation is examined. The results indicate that politically sensitive firms with significant bargaining power, proxied for by the portion of firm annual contract dollars that are derived from defense contracts, the portion of firm annual contract dollars not subject to competition, the Herfindahl industry concentration index, the portion of the industry comprised of government contractors, or firm political campaign contributions, do not experience the same magnitude of decrease in excess compensation. This suggests that the effects of political sensitivity can be mitigated by bargaining power. In fact, politically sensitive government contractors with significant bargaining power actually pay greater excess compensation. This indicates that some government contractors hold enough bargaining power to completely offset their compensation-related political costs as illustrated by the lack of relation between excess compensation paid and contracts awarded for this subsample.

This is the first paper to empirically investigate the relationship between political sensitivity and executive compensation by extending the political cost hypothesis to the context of executive compensation for government contractor firms. First, these findings provide broadened perspectives on the determinants of executive compensation while revealing an additional mechanism of stakeholder compensation monitoring in the form of increased government scrutiny due to political sensitivity. Also, the results provide insight into the limitations of this additional oversight due to firm bargaining power. Finally, these results offer evidence of the potential impact of the government's role in the private sector through the growing federal contracts market and compensation legislation. As the federal contracting market continues to grow, the government's reach is lengthened and, echoing the conclusions reached by Joskow et al. (1996), as the legislated visibility of executive compensation increases for all firms, the political sensitivity of all firms may increase as well.

Literature Review & Hypothesis Development

Executive Compensation

CEO compensation has attracted significant attention due to its divisive nature and the conflict between agency theory and entrenchment theory (Murphy, 1999; Core, Holthausen, & Larcker, 1999; Core, Guay, & Larcker, 2008; Frydman, 2010; Armstrong, Ittner, & Larcker, 2012). Agency theory suggests compensation is simply a result of efficient contracting in a competitive labor market. Accordingly, many argue compensation is directly tied to a key set of economic determinants and is set effectively to incentivize managers to act in shareholders' interests (Gabaix & Landier, 2008;

Kaplan, 2008; Kaplan, 2012; Gabaix, Landier, & Sauvagnat, 2014). However, others have claimed that the compensation-setting process is also greatly affected by rent extraction of entrenched managers with too much power over their boards and their own pay (Bertrand & Mullainathan, 2001; Bebchuk & Fried, 2003; Bebchuk & Fried, 2004; Frydman & Jenter, 2010; Cianci, Fernando, & Werner, 2012; Murphy, 2013). Consistent with this view, researchers find support of CEO rent extraction in compensation through the use of socially connected board members (Hwang & Kim, 2009), peer group selection (Faulkender & Yang, 2010; Bizjak, Lemmon, & Nguyen, 2011), compensation consultants (Armstrong, Ittner, & Larcker, 2012), campaign contributions (Aslan & Grinstein, 2012), and political lobbying (Skaife, Veenman, & Werner, 2013; Sobel & Graefe-Anderson, 2014) among other practices. Essentially, many agree that the power the CEO has over the board of directors can result in costly agency costs for the firm and its shareholders in the form of excess compensation.

The literature has shown that firm corporate governance can greatly impact the monitoring of compensation and such agency costs. Armstrong et al. (2012) summarize that “many directors’ lack of incentives, skills, or available time to adequately scrutinize proposed CEO pay packages, give CEOs in firms with weak governance considerable influence over the pay-setting process and compensation outcomes.” The authors find that weaker corporate governance, proxied for using multiple measures of board of director characteristics and board charter rules, is associated with higher levels of excess compensation. Similarly, others have found that CEO compensation is impacted by board control (Boyd, 1994), ownership characteristics (Core, Holthausen, & Larcker, 1999; Cyert, Kang, & Kumar, 2002; Hartzell & Starks, 2003), and board characteristics (Yermack, 1996; Core et al., 1999; Faleye, 2007) among other factors.⁹

In addition to the impact of corporate governance on compensation, evidence of compensation monitoring in many other forms has been supported. Jensen & Murphy (1990) propose that “public and private political forces” also impose constraints on compensation and wealth-performance sensitivity. Murphy (1999) adds to this and states that “third parties such as rank-and-file employees, labor unions, consumer groups, Congress, and the media affect the type of contracts written between

⁹ Boyd (1994) finds that CEO compensation increases with CEO duality and total director compensation but decreases with board stock ownership, insider ratio, and board representation by ownership groups. Core et al. (1999) show that increased CEO compensation is associated with CEO duality, larger boards, greater percentage of outside directors, greater percentage of grey directors, and older and busy directors. However, decreased CEO compensation is associated with increased CEO ownership and the presence of a blockholder. Cyert et al. (2002) conclude that equity ownership of the largest external shareholder and equity ownership of the BOD are strongly negatively related to the size of CEO equity compensation. Similarly, Hartzell & Starks (2003) find that institutional ownership concentration is positively related to executive pay-performance sensitivity and negatively related to the level of executive compensation. Yermack (1996) concludes that small boards provide stronger CEO performance incentives through compensation. Finally, Faleye (2007) suggests that classified boards entrench management and insulate them from market discipline leading to increased executive compensation.

management and shareholders.” Empirical evidence of such political constraints on compensation has been provided in the context of influences due to media pressure (Core et al. 2008), regulatory pressure, and union pressure.

Joskow, Rose, and Wolfram (1996) is one of the first papers to examine regulatory pressure on compensation. In their analysis, the authors find evidence of political constraints on executive compensation by proxying for political pressure using measures related to the local business, regulatory, and political environments as well as customer characteristics. Without making statements about the welfare effects of political constraints on executive compensation, the authors find that CEOs of electric companies under greater political pressure receive lower compensation. They conclude that political pressures constrain the pay levels of top executives in heavily regulated industries. Specifically, the authors state, “Economic regulation appears to provide an effective mechanism through which public concerns about executive compensation can be translated into political and regulatory actions, and ultimately into reduced CEO pay.” Furthermore, they suggest that legislative efforts to increase the visibility of CEO compensation may further increase the political pressures on CEOs across all industries. Related research has also found support for the political constraints of regulated industry executive compensation resulting in CEOs with lower quality education (Palia, 2000; Hadlock, Lee, & Parrino, 2002) who are paid with like compensation characteristics including lower total compensation as well as lower wealth-performance sensitivity (Bryan & Hwang, 1997; Wolfram, 1998; Holden & Jolls, 2008; Cunat & Guadalupe, 2009).

Similarly, other studies have theorized and documented that the increased political attention brought on by unionization constrains compensation resulting in lower total executive compensation and often, lower wealth-performance sensitivity as well (Jensen & Murphy, 1990; DeAngelo & DeAngelo, 1991; Gomez & Tzioumis, 2006; Jiang, Lie, & Que, 2010). In addition, despite research suggesting the positive impacts of politically connected firms (Faccio, 2002; Faccio, 2010; Faccio, Masulis, & McConnell, 2006; Goldman, Rocholl, & So, 2007; Goldman, Rocholl, & So, 2013)¹⁰, Yu (2010) finds evidence of the effects of political constraints, in the form of sensitivity arising due to politically connected Taiwanese boards, resulting in both lower levels and lower wealth-performance sensitivity of executive compensation. The author concludes

¹⁰ Faccio (2002; 2010) find that firms with a politically connected controlling shareholder or top manager benefit from easier access to debt financing, lower taxation, and stronger market power. The strength of these benefits vary with the level of country corruption and economic development. However, despite significant benefits the author finds that these firms still under-perform their peers. Further, Faccio, Masulis, & McConnell (2006) find that politically connected firms benefit from increased likelihood of being bailed out. Goldman, Rocholl, and So (2007) find that firms with politically connected board members experience an increase in firm value when the associated political party is in presidential power. In addition, firms experience a positive abnormal stock return in response to the announcement of a politically connected director nomination. Finally, Goldman et al. (2013) find that politically connected firms benefit from increased procurement contracts when their associated political party is in power.

that this can have negative consequences for the alignment of interests between shareholders and management. Others have investigated the political use of the corporate tax code to influence executive-pay decisions and find that although the tax policy may not be completely effective in curbing pay, it is more effective when political costs are greater (Perry & Zenner, 2001; Rose & Wolfram, 2000; Rose & Wolfram, 2002; Balsam & Yin, 2005).

Politically Sensitive Firms

In addition to evidence of political constraints on compensation, other financial constraints have been documented in the literature on politically sensitive firms. This literature has stemmed from the political cost hypothesis, first developed by Watts and Zimmerman (1986). Watts and Zimmerman propose that the political and regulatory process, a competition for both positive and negative government wealth transfers (Stigler, 1971; Peltzman, 1976), results in government scrutiny for firms and this scrutiny has an effect on accounting choices. Specifically, the political cost theory proffered by Watts and Zimmerman predicts that firms take actions to avoid government scrutiny that may potentially result in costly negative government reactions. Watts and Zimmerman offer examples of this type of politically-motivated corporate behavior including government lobbying, social responsibility campaigns in the media, and selection of accounting procedures to minimize reported earnings in an effort to stay below the radar.

The political cost hypothesis has been the foundation for significant empirical research. Most commonly, this research has revolved around the impacts of government scrutiny on firms' accounting choices in the form of downward earnings management, choice of accounting methods, voluntary disclosure behavior, and corporate tax treatment. For example, Cahan (1992) offers support for the political cost hypothesis in his finding that discretionary accruals are lower when firms are under increased government scrutiny due to an antitrust investigation. Jones (1991) also finds that firms manage earnings downward due to the political costs that arise in an import relief investigation. Similarly, Han and Wang (1998) find that oil companies used accruals to reduce reported earnings, and thus reduced political sensitivity, during the 1990 Persian Gulf crisis and Key (1997) finds that cable companies also reported reduced earnings during cable industry deregulation.

In addition to earnings management, many studies have focused on the effects of political sensitivity on other discretionary accounting decisions. Daley and Vigeland (1983) conclude that larger firms expense R&D costs, rather than capitalizing, to avoid government scrutiny and political costs while Bowen, Noreen, and Lacey (1981) find that political costs induce firms to capitalize, rather than expense, interest. Raffournier (1995) utilizes a sample of Swiss firms and their voluntary disclosures in their annual reports to propose that larger firms voluntarily disclose more information in an effort to minimize political costs. This result has been illustrated by the voluntary disclosure of auditor-provided tax service fees (Bedard et al., 2010), social responsibility disclosure (Trotman & Bradley, 1981; Ghazali, 2007), and compensation disclosure (Canyon,

Mallin, & Sadler, 2002; Hill, Shelton, & Stevens, 2002; Meek, Rao, & Skousen, 2007; Taylor, Darus, & Liu, 2008).

Government Contractors

Government contractors represent a special type of firm that may be susceptible to the effects of political sensitivity due to their supplier relationships with the government. These firms compose a large portion of all industries of the U.S. economy and have historically received significant government, media, and watchdog attention due to the government-taxpayer customer role (Mills et al., 2013). Theoretically, federal contracting is often viewed in a principal-agent context as well as from an efficient contracting perspective. The principal-agent context of federal contracting highlights potential conflicts of interest between contractor firms, their management, politicians, and the public. In addition, this perspective unveils the possibility of the threat of political intervention as a mechanism of political influence on firm decision making (Witko, 2011). This notion of political influence was also proposed by Agapos and Dunlap (1970) in their model of the government–industry relationship in which they theorize that in addition to the standard desire of the contractor to maximize profits and the government’s aim to minimize costs, the relationship is also affected by political pressures.

Much of the related empirical literature has focused on only one segment of government contractors, that of defense contracts. Most of these studies have targeted contractor profitability (Weidenbaum, 1968; Agapos & Gallaway, 1970; Stigler & Friedland, 1971; Bohi, 1973; Lichtenberg, 1992; McGowan & Ventrzyk, 2002; Zhong & Gribbin, 2009)¹¹ or contractor accounting manipulation and fraud (Thomas & Tung, 1992; Karpoff, Lee, & Ventrzyk, 1999)¹². Notably, in their analysis of defense contract procurement fraud, Karpoff et al. (1999) introduce the notion that firms that depend on government contracts for a substantial portion of their revenue may bear higher potential costs of government disfavor. Although this result was particularly strong among smaller contractors, there was no evidence of this relation when the firm was ranked as one of the Top 100 Defense Contractors. Similarly, Salvador and Ventrzyk (2006) also analyze Top 100 Defense Contractors and conclude that market power significantly impacts a firm’s ability to capture the benefits of tax preferences for government contractors. These results highlight the advantage inherent in contractor clout.

¹¹ While Weidenbaum (1968), Lichtenberg (1992), and McGowan & Ventrzyk (2002) find evidence of excessive defense contractor returns, Agapos & Gallaway (1970), Bohi (1973), and Zhong & Gribbin (2009) do not. Stigler & Friedland (1971) find evidence of high defense stock returns for a segment of their sample period but this relationship does not hold over time.

¹² Thomas & Tung (1992) provide evidence of contractor cost shifting in their analysis of pension costs while Karpoff et al. (1999) examine defense procurement fraud.

Bargaining power, such as that arising from defense contractor clout, may originate from several sources and has been shown to be an important determinant of the outcome of a government-contractor relationship. Agapos and Gallaway (1970) first consider the impact of contractor bargaining power in their analysis of wartime aerospace supplier returns and find that although defense contractors do not experience higher profitability during increased defense activity, contractors do have sufficient bargaining power to render the Renegotiation Board ineffective in regulating the profitability of the industry. In addition to bargaining power stemming from defense contractor clout, Mills et al. (2013) suggest that the bargaining power of a government contractor can increase due to the contractor being one of a limited number of qualified contractors available or due to the specialized nature of the contract itself. The literature has also found contractor bargaining power to be increased through the use of political donations and connections.¹³ These results shed light on some of the effects of varied forms of bargaining power that affect the complicated political process inherent in government contracting.

Most recently, building on the premise of the political nature of contracting, Mills et al. (2013) developed their own measure of political sensitivity and examined its effect on the tax treatment of government contractors. Political sensitivity is a composite measure that takes into account both the size of contracts and their importance to firm revenue. In their analysis of government contractor firms, the authors find support for the political cost hypothesis and conclude that government contractors with greater political sensitivity incur greater taxes due to the political costs of maintaining contract revenues. However, the relation between political sensitivity and effective tax rates is tempered, and possibly even reversed, when contractor bargaining power is considered.

Hypothesis Development

Continuing this research, this study evaluates the constraints on compensation associated with the political sensitivity of government contractor firms using Mills' et al. composite measure of political sensitivity. Despite the research on the effects of political payments and pressure on executive compensation in regulated industries and in politically-connected firms, the impact of political sensitivity on executive compensation, due to the receipt of taxpayer funds arising from the consumer role of government, has not yet been examined. Based on the prior literature and its support of the costs of government scrutiny, the study investigates the hypothesis that government contractors

¹³ Witko (2011) finds that government contractor firms benefit from campaign contributions through both increased contracts and better information about the contracting process. Similarly, Goldman, Rocholl, & So (2013) find that corporate government contracts increase when boards are connected to the party in power, supporting Luechinger & Moser's (2012) conjecture that positive market reactions to executive political appointments may be due to the perceived possibility of increased contract procurements.

with greater political sensitivity will pay less excess CEO compensation to deflect scrutiny that could lead to negative government reactions that result in the loss of contract revenue.

H1: Government contractor firms with greater political sensitivity pay lower levels of excess CEO compensation.

For these firms, government scrutiny may serve as a monitoring device for excess executive compensation or it may restrict efficient compensation contracting. If political sensitivity acts as an effective monitoring device for executive compensation, one may expect greater incentive alignment between the manager and shareholders through increased CEO long-term wealth-performance sensitivity as well as through an increased portion of equity compensation. However, if less politically sensitive government contractor executives are paid an inefficiently high level of equity pay, then effective political sensitivity monitoring may result in a decrease in executive wealth-performance sensitivity and in the equity component of compensation. Without an accepted measure of expected equity compensation, it is difficult to make conclusions on the consequences of the impact of political sensitivity monitoring on wealth-performance sensitivity and compensation composition.

Despite the difficulties in assigning merit to the direction of impact, the literature does theorize that there are political costs inherent in equity pay. The political costs of equity-based pay were first acknowledged by Jensen and Murphy (1990). They recommended that firms increase wealth-performance sensitivities regardless of the “political costs” in order to maximize firm value by increasing the alignment between CEOs’ and shareholder’s interests. However, despite their recommendation, Yu (2010) hypothesizes and finds support of political constraints on equity-based pay. The author concludes that high equity-based pay contradicts the government’s goal of maintaining social harmony due to the highly scrutinized nature of equity-based compensation. Yu (2010) explains that “from the government’s perspective, the level of CEO equity-based compensation is determined by a function of social harmony and shareholders’ interests and not by a function of shareholders’ interests only.” Given the evidence, the study investigates the hypothesis that firms with greater political sensitivity will be more susceptible to the political costs of equity-based compensation, thus reducing wealth-performance sensitivity and impacting the structure of compensation.

When examining the incentive structure of executive compensation, it is important to consider wealth-performance sensitivity in addition to current compensation structure because the level of incentives is systematically underestimated when only focusing on current pay (Frydman 2008). In addition to their current pay, many executives have substantial, existing stock and option holdings in their firm, which directly tie considerable portions of their wealth to their firm’s stock price performance.

H2: The compensation structure of CEOs of government contractor firms will be impacted by the firm’s political sensitivity.

H3: The wealth-performance sensitivity of CEOs of government contractor firms will be impacted by the firm’s political sensitivity.

Finally, given the literature’s recognition of the significance of bargaining power in the context of both executive compensation and politically sensitive government

contractors, it is predicted that the compensation levels, structures, and performance sensitivities of government contractor firms with significant bargaining power will be impacted less by political sensitivity.

H4: Government contractor bargaining power will mitigate the effects of political sensitivity on CEO compensation.

Data & Methodology

To address these questions, contracting data released under the Federal Funding Accountability and Transparency Act of 2006 is utilized. This data covers the period beginning in fiscal year 2000 and is housed on Fedspending.org. Intended to increase transparency and accountability in government contracting, the database includes federal contract awards for the amount of contract goods and services ordered and obligated by the government per year. Contracts are aggregated at the firm level on a government fiscal year basis and then firms are matched to Compustat following the methodology of Mills et al. (2013).¹⁴ Finally, each match is hand-checked for accuracy and only exact matches are retained. In addition, stock return data are collected from CRSP, compensation data and CEO characteristics are collected from ExecuComp, institutional ownership data are collected from Thomson Reuters Institutional Holdings (13F) data, governance board characteristics and CEO ownership data are collected from RiskMetrics, voting results are collected from Voting Analytics, and the managerial ability index is collected from Demerjian et al. (2012) to proxy for skill.

Dependent variables related to compensation levels, composition, and performance-sensitivities are utilized in the analysis. To consider the impact of political sensitivity on the level of CEO compensation, the natural logs of total CEO compensation and excess CEO compensation (Core et al., 2008) are used. Total CEO compensation is measured as the sum of salary, bonus, total value of restricted stock granted, total value of stock options granted, long-term incentive payouts, and all other compensation.¹⁵ Excess CEO compensation is calculated as the difference between expected and actual compensation using the methodology of Core et al. (2008). Accordingly, expected CEO compensation is a fitted value using the resulting coefficients from a cross-sectional regression of CEO total compensation on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and

¹⁴ First, contractor firms are matched to Compustat based on only the first five letters of each name. Then, SAS text-matching algorithms are utilized in which only matches where SAS function `spedis` (Compustat name, contractor name) is less than 11 and SAS function `complev` (Compustat name, contractor name) is less than 3. Each match is hand-checked and only exact matches are retained.

¹⁵ This is referred to as TDC1 in ExecuComp.

two digit SIC industry fixed effects for the ExecuComp universe over the sample period.¹⁶

Compensation structure is analyzed through the proportions of total compensation that are comprised of cash and equity. Cash compensation includes salary and bonus, and equity compensation includes the total value of restricted stock granted, the total value of stock options granted, and long-term incentive payouts. Finally, wealth-performance sensitivity is defined as the change in the value of the CEO's firm-specific wealth from direct stock holdings and options for a one thousand dollar change in firm market value as calculated by Jensen and Murphy (1990) and Biggerstaff (2014)¹⁷:

$$WPS_i = \frac{\text{Total Share Ownership} + \sum \Delta * \text{Number of Shares Underlying Option}}{\text{Total Shares Outstanding}} * \$1,000 \quad (1)$$

The political sensitivity measure, the main explanatory variable of interest, is adopted from Mills' et al. (2013). First, Contract Visibility is measured as the total dollar amount of federal contracts for each individual government contractor firm in each year and High Visibility is an indicator variable equal to one if a firm's Contract Visibility is in the top decile of all firms' Contract Visibility in a given year. Government contractor firms are only included in the sample when they have non-zero contracts for the year. Contract Importance to the firm is measured as the ratio of federal contract dollars the firm receives to its total revenues. Finally, Political Sensitivity is the product of High Visibility and Contract Importance taking into account both the size and visibility of contracts as well as their importance to the firm. Firm Bargaining Power is proxied for in a number of ways. The proportion of firm defense contract dollars to total firm annual contract dollars, the proportion of firm contract dollars that were not subject to competition to total firm annual contract dollars (Mills et al., 2013), the Herfindahl industry concentration index, the proportion of the industry comprised of government contractors, and firm political campaign contributions are all considered.

Given the link between weak corporate governance and excess compensation in the literature, the study controls for several measures of board characteristics and firm culture that have been shown to impact corporate governance and executive

¹⁶ All analysis is robust to excess compensation calculated using only the government contractors sample.

¹⁷ Each CEO's option-grant sensitivity is measured using calculated individual Deltas in which Delta is the sensitivity of the manager's wealth to stock price. Each Delta is calculated on the basis of fiscal year end stock price, time to expiration, strike price, 3-year average dividend yield, and the standard deviation of monthly returns over the prior 60 months. Then each Delta is multiplied by the number of underlying shares and these are summed to calculate the total Delta of the option portfolio. The measure is interpreted as extra dollars of compensation for every one thousand additional dollars of firm value or shareholder wealth.

compensation. In addition to Core's et al. (2008) compensation determinants of CEO tenure, firm sales, book-to-market ratio, stock returns, ROA, S&P 500 inclusion, and year and industry fixed effects, the standard deviation of firm returns is included to control for changes in compensation associated with firm risk due to the steady nature of government revenue. The entrenchment index of Bebchuk et al. (2009) is utilized to proxy for shareholder rights restrictions and includes indicators for staggered boards, limits to shareholder amendments of the bylaws, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills, and golden parachute arrangements. To proxy for monitoring and oversight, the percentage of independent directors on the board (Core et al., 1999; Aslan & Grinstein, 2012; Armstrong et al., 2012), the percentage of grey directors on the board (Core et al., 1999), and institutional ownership (Hartzell & Starks, 2003) are included. CEO power and incentive alignment are proxied for using CEO ownership (Mehran, 1995; Core et al., 1999) and a CEO/Chair duality indicator (Boyd, 1994; Core et al., 1999; Armstrong et al., 2012). The literature has found that stronger corporate governance is associated with a greater percentage of independent directors, institutional ownership, and CEO ownership. On the other hand, weaker governance is associated with higher e-index, greater percentage of grey directors, and when there is CEO-Chair duality. Finally, executive skill is controlled for as a determinant of excess CEO compensation using Demerjian's et al. (2012) manager ability index.¹⁸

The sample construction process yields a sample of 4,173 federal government contractor firm years for the years 2000 through 2011, representing 704 unique firms. Descriptive statistics are provided in Table 1. There are significant differences between those government contractors with the most political sensitivity and those with less. The highly politically sensitive sample is comprised of much larger firms with average market cap and revenue of nearly \$31 billion and \$26 billion, respectively, compared to average market cap and revenue of nearly \$9 billion and \$7 billion, respectively, of other government contractors. Similarly, over 60% of the politically sensitive sample is comprised of S&P 500 firms where less than 30% of the government contractor control sample are S&P 500 firms. Although there are not significant differences in annual stock returns between the two groups, politically sensitive contractors have significantly greater ROA and significantly lower risk as measured by standard deviation of returns.

¹⁸ To calculate this measure, Demerjian et al. first estimate total firm efficiency within industries using data envelopment analysis, where efficient firms are those that generate more revenues from a given set of inputs including Cost of Goods Sold, Selling and Administrative Expenses, Net PP&E, Net Operating Leases, Net Research and Development, Purchased Goodwill, and Other Intangible Assets. Then, this efficiency measure is regressed on key firm-specific characteristics expected to aid or hinder management's effort including firm size, market share, positive free cash flow, and firm age, and complex multi-segment and international operations. The residual of this regression is used to enable total efficiency to be partitioned between the firm and the manager to estimate manager ability, or MA Score as termed by Demerjian et al. This score is published by the authors on an annual basis. However, it has a limited sample size due to its dependence on a variety of inputs.

These firms also have greater total compensation including greater levels of salary and bonus. However, on average their pay is comprised of a lower percentage of cash compensation. Although these firms receive both greater total and size-industry adjusted compensation on average, their excess compensation is significantly less than other government contractor firms. In addition, these firms are characterized by larger boards with a higher percentage of independent directors and a lower percentage of inside directors.

Table 2 presents descriptive statistics on the contracts covered in the government contractor sample. The average government contractor in the sample receives 540 contracts per year for total annual contracts of \$68.2 million (Contract Visibility). Of these contracts, 48% are derived from defense contracts and 38% are not subject to competition. In addition for those government contractors with positive political campaign contributions, the annual average is just over \$250,000. The range for the portion of firm annual contract dollars to firm revenue is highly skewed; although the average firm's contracts comprise only 1.8% of its revenues (Contract Importance), contracts comprise nearly 40% of firms' revenues at the 99th percentile. Since Political Sensitivity is the interaction of Contract Importance with being in the top decile of Contract Visibility, this variation in Contract Importance creates a wide range in the top decile of Political Sensitivity with values ranging from 0.1% at the 90th percentile to 39.1% at the 99th percentile.

The size of contracts has grown significantly over time and therefore, the range of contract dollars in the sample varies greatly over the sample period, beginning at an average of \$36.2 million in 2000 at the start of the sample period and peaking at an average of \$88.5 million in 2010. As shown in panel C of Table 2, the government contractor sample covers a wide range of industries with Business Equipment and Manufacturing making up the greatest proportions of the sample with approximately 25% and 14% respectively. These industries are strongly reflected in the politically sensitive sample of government contractors as well, representing approximately 21% of the sample each. The sample of government contractor firms is diverse and includes firms ranging from The Cheesecake Factory to Lockheed Martin Corporation.

Multivariate Results

The Impact of Political Sensitivity on Compensation Levels

To test H1 and the impact of political sensitivity on total and excess CEO compensation, excess compensation must first be calculated. Table 3 presents the cross-sectional regressions used to compute excess compensation. Following the methodology of Core, Guay, and Larcker (2008), the natural log of total compensation is regressed on the natural log of CEO tenure, the natural log of prior year sales, an indicator for S&P 500 inclusion, prior year's book-to-market ratio, current and prior years' annual stock returns, current and prior years' ROA, and year and SIC 2-digit industry fixed effects

using eq. (2). The provided coefficients are used to calculate expected (fitted) compensation and the difference between actual and expected compensation is the proxy used for excess compensation.

(2)

$$\begin{aligned} \ln(\text{total compensation}) &= \beta_0 + \beta_1 * \ln(\text{tenure}) + \beta_2 * \text{Sales}_{t-1} + \beta_3 * \text{BTM}_{t-1} + \beta_4 * \text{Ret}_{t-1} + \beta_5 \\ &* \text{Ret}_t + \beta_6 * \text{ROA}_{t-1} + \beta_7 * \text{ROA}_t + \beta_8 * \text{S\&P 500}_t \\ &+ \text{Year \& Industry FEs} + \varepsilon \end{aligned}$$

The first column of Table 3 presents the coefficients produced by Core et al. (2008). In column 2, the coefficients are developed using Core's model for the ExecuComp universe for the updated sample period of 2000 through 2011. In column 3, the coefficients are developed using only the government contractor sample. Consistent with Core et al. (2008), in the second column total compensation is positively and significantly related to sales, current and lagged annual returns, and S&P 500 membership while it is negatively and significantly related to BTM and current and lagged ROA. When restricting the sample to government contractor firms, the relations between total compensation and current annual returns, current ROA, and lagged ROA lose their significance. However, results using excess compensation are robust to either measure of excess compensation.

Table 4 considers the determinants of total compensation for government contractors using Core's et al. (2008) controls, the standard deviation of returns as a proxy for firm risk, and measures of political sensitivity, bargaining power, and their interaction as illustrated in eq. (3). Year fixed effects are included in each specification. Industry fixed effects are also included with the exception of models focusing on industry concentration as proxies for bargaining power. Each of the five specifications corresponds to a separate measure of bargaining power. In the first column, bargaining power is proxied for using the percentage of firm annual contract dollars not subject to competition, in the second column, it is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts, the Herfindahl industry concentration index is used in the third column, in the fourth column it is proxied for using firm political campaign contributions, and finally, in the fifth column bargaining power is proxied for using the proportion of the industry that is comprised of government contractors.

(3)

$$\begin{aligned} \ln(\text{total compensation}) &= \beta_0 + \beta_1 * \text{Political Sensitivity} + \beta_2 * \text{Bargaining Power} + \beta_3 \\ &* \text{Political Sensitivity} * \text{Bargaining Power} + \beta_4 * \text{Std Dev of Returns} \\ &+ \text{Core et al. (2008) controls} + \text{Year \& Industry FEs} + \varepsilon \end{aligned}$$

In each of the five specifications in Table 4, corresponding to each measure of bargaining power, there is evidence that government contractors with the greatest political sensitivity pay less in total CEO compensation as evidenced by a significant and negative coefficient on political sensitivity. This relation is mitigated when the

politically sensitive contractor has significant bargaining power proxied for using the percentage of contracts not subject to competition. When political sensitivity is interacted with bargaining power, measured as the percentage of contract dollars not subject to competition, the coefficient is significant and positive, suggesting that bargaining power, in the form of contract dollars derived from non-compete bids, reduces the decline in total compensation that arises from increased political sensitivity. It is worth noting that this is not the case when bargaining power is measured in other ways suggesting the impact of different forms of bargaining power may vary. However, industry concentration (HHI) does enter negatively and significantly while HHI² enters positively and significantly. This is consistent with the literature and illustrative of the hyperbolic relation between industry concentration and CEO total compensation (Graboyes, 2010).

Similarly, Table 5 focuses on the impact of political sensitivity on excess compensation, measured as residual compensation using the ExecuComp universe and the resulting coefficients from column 2 of Table 3. In each of the five columns of Table 5, corresponding to each measure of bargaining power, excess compensation is regressed on measures of political sensitivity and bargaining power, their interaction, the standard deviation of returns as a proxy for firm risk, market cap, and year fixed effects. Industry fixed effects are also included with the exception of models focusing on industry concentration as the proxy for bargaining power. In Tables 6, 7, and 8 the manager ability score, the E-Index, and the percentage of grey directors are included as additional controls, as illustrated in eq. (4).¹⁹

(4)

Excess CEO Compensation

$$\begin{aligned}
 &= \beta_0 + \beta_1 * \textit{Political Sensitivity} + \beta_2 * \textit{Bargaining Power} + \beta_3 \\
 &* \textit{Political Sensitivity} * \textit{Bargaining Power} + \beta_4 * \textit{Market Cap} + \beta_5 \\
 &* \textit{Std Dev of Returns} + \beta_6 * \textit{E - Index} + \beta_7 * \% \textit{ Grey Directors} + \beta_8 \\
 &* \textit{CEO Ability Scores} + \textit{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

In support of H1, results suggest that in addition to total compensation, the most politically sensitive government contractors also pay less excess compensation. In all but one of the regressions in Table 5, the impact of political sensitivity on excess compensation is significant and negative. Similarly, when governance controls are added in Table 6, a continued negative and significant impact of political sensitivity is

¹⁹ Table 7 repeats this analysis where the dependent variable is excess compensation measured as residual compensation using only the government contractor sample and the resulting coefficients from column 3 of Table 3. The results for political sensitivity and measures of bargaining power are robust to both measures of excess compensation with the exception of industry concentration. Table 8 repeats the analysis where the dependent variable is excess compensation calculated as the difference between a firm's total compensation (TDC1) and median total compensation for its corresponding size tercile in its 2 digit SIC industry group. While political sensitivity remains significant in some specifications, bargaining power does not when using industry and size adjusted compensation.

observed in four out of five specifications.²⁰ In fact moving from the 90th percentile of political sensitivity to the 99th percentile reduces excess CEO compensation by as much as \$2.0 million compared with the benchmark government contractor firm.²¹ However, in support of H3, when political sensitivity is interacted with four out of five proxies used for bargaining power, the coefficient is significant and positive. This suggests that government contractors with greater political sensitivity are associated with less excess compensation but this relation is mitigated when these politically sensitive contractors have large percentages of defense contracts, large percentages of contracts not subject to competition, greater industry concentration, or significant political campaign contributions.

For example, a firm with political sensitivity in the 99th percentile and bargaining power in the 75th percentile, as measured by industry concentration, has average excess compensation of only \$759,000 less than the average government contractor firm.²² Similarly, when bargaining power is measured as the percentage of contract dollars derived from defense, the average excess compensation of a firm with political sensitivity in the 99th percentile and bargaining power in the 75th percentile is only \$573,000 less than the average government contractor firm compared with \$2.0 million less than average for firms in the 99th percentile of political sensitivity without any contracts derived from defense.²³ In fact, politically sensitive government contractors

²⁰ When bargaining power is proxied for using the proportion of the industry comprised of government contractors, neither bargaining power or political sensitivity are significant.

²¹ Moving from the 90th percentile of political sensitivity (the beginning of the politically sensitive sample) to the 99th percentile based on column 1 of Table 6:

$$-\$1,353,690 = (\beta_1, \text{Table 6, Column 1}) * [(\text{PoliticalSensitivity}, P99) - (\text{PoliticalSensitivity}, P90)] \\ = -3,471 * (0.3913 - 0.0013)$$

Moving from the 90th percentile of political sensitivity to the 99th percentile based on column 2 of Table 6:

$$-\$2,014,350 = (\beta_1, \text{Table 6, Column 2}) * [(\text{PoliticalSensitivity}, P99) - (\text{PoliticalSensitivity}, P90)] \\ = -5,165 * (0.3913 - 0.0013)$$

Moving from the 90th percentile of political sensitivity to the 99th percentile based on column 3 of Table 6:

$$-\$1,505,400 = (\beta_1, \text{Table 6, Column 3}) * [(\text{PoliticalSensitivity}, P99) - (\text{PoliticalSensitivity}, P90)] \\ = -3,860 * (0.3913 - 0.0013)$$

Moving from the 90th percentile of political sensitivity to the 99th percentile based on column 4 of Table 6:

$$-\$1,176,390 = (\beta_1, \text{Table 6, Column 4}) * [(\text{PoliticalSensitivity}, P99) - (\text{PoliticalSensitivity}, P90)] \\ = -3,016 * (0.3913 - 0.0013)$$

²² Excess compensation for political sensitivity in 99th percentile and bargaining power (% Defense) at the 75th percentile based on column 3:

$$-\$759,236 = (\text{The baseline excess comp for a firm in the 99th percentile of Political Sensitivity from Footnote \#21}) + (\beta_3, \text{Table 6, Column 3}) * (\text{Political Sensitivity}, P99) * (\text{Bargaining Power}, P75) \\ = -1,505 + (5,647 * .3913 * .3375)$$

²³ Excess compensation for political sensitivity in 99th percentile and bargaining power (% Defense) at the 75th percentile based on column 2:

$$-\$573,064 = (\text{The baseline excess comp for a firm in the 99th percentile of Political Sensitivity from Footnote \#21}) + (\beta_2, \text{Table 6, Column 2}) * (\text{Bargaining Power}, P75) + (\beta_3, \text{Table 5, Column 6}) * (\text{Political Sensitivity}, P99) * (\text{Bargaining Power}, P75) \\ = -2,014 + (-1,341 * .9220) + (7,421 * .3913 * .9220)$$

with significant bargaining power may actually pay greater excess compensation. For example, the average excess compensation of a firm with political sensitivity in the 99th percentile and bargaining power in the 75th percentile, as measured by the percentage of contract dollars not subject to competition, is actually \$1.1 million more than the average government contractor firm compared with \$1.4 million less than average for politically sensitive firms without any contracts not subject to competition.²⁴ In support of H1, this indicates that firms generally pay less excess compensation to their CEO when contracts are large and comprise an important component of firm revenues consistent with increased government and media scrutiny. However, in support of H4, firms with more bargaining power, do not pay as much less excess compensation as a result of political sensitivity, and in fact, may even pay more in excess compensation.

The Impact of Political Sensitivity on Compensation Structure

To test H2 and the impact of political sensitivity on the structure of CEO compensation, the cash ratio and equity ratio are used as dependent variables. First, Table 9 considers the impact of political sensitivity on the structure of pay through the proportion of total compensation comprised of cash. The cash ratio is regressed on political sensitivity, bargaining power, and the interaction between bargaining power and political sensitivity while controlling for CEO tenure, CEO ownership, firm sales, ROA, BTM, standard deviation of returns, S&P 500 inclusion, and governance controls including institutional ownership, E-Index, and the percentage of grey directors as illustrated in eq. (5). As before, each model specification corresponds to a measure of bargaining power.

(5)

$$\begin{aligned}
 \text{Cash Ratio} = & \beta_0 + \beta_1 * \text{Political Sensitivity} + \beta_2 * \text{Bargaining Power} + \beta_3 \\
 & * \text{Political Sensitivity} * \text{Bargaining Power} + \beta_4 * \text{Ln}(\text{Tenure}) + \beta_5 \\
 & * \text{Std Dev of Returns} + \beta_6 * \text{Ln}(\text{Sales}) + \beta_7 * \text{SP500} + \beta_8 * \text{BTM} + \beta_9 \\
 & * \text{ROA} + \beta_{10} * \text{E - Index} + \beta_{11} * \% \text{ Grey Directors} + \beta_{12} \\
 & * \text{Institutional Ownership} + \beta_{13} * \text{CEO Ownership} \\
 & + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

²⁴ Excess compensation for political sensitivity in 99th percentile and bargaining power (% Non-Compete) at the 75th percentile based on column 1:

$$\begin{aligned}
 \$1,101,011 = & (\text{The baseline excess comp for a firm in the 99th percentile of Political Sensitivity from} \\
 & \text{Footnote \#21}) + (\beta_3, \text{Table 6, Column 1}) * (\text{Political Sensitivity, P99}) * (\text{Bargaining Power, P75}) \\
 = & -1,354 + (8,765 * .3913 * .7158)
 \end{aligned}$$

Excess compensation for political sensitivity in 99th percentile and bargaining power (% Defense) at the 75th percentile based on column 4:

$$\begin{aligned}
 \$6,757,211 = & (\text{The baseline excess comp for a firm in the 99th percentile of Political Sensitivity from} \\
 & \text{Footnote \#21}) + (\beta_2, \text{Table 6, Column 4}) * (\text{Bargaining Power, P75}) + (\beta_3, \text{Table 5, Column 8}) * (\text{Political} \\
 & \text{Sensitivity, P99}) * (\text{Bargaining Power, P75}) \\
 = & -1,176 + (-0.0035 * \$340,422) + (0.0685 * .3913 * \$340,422)
 \end{aligned}$$

In support of H2, it is evident that government contractors with greater political sensitivity are paid greater portions of cash compensation given the significant and positive coefficient on political sensitivity in all but the third and fifth columns. When proxying for bargaining power using the HHI industry concentration index or the proportion of the industry comprised of government contractors, political sensitivity loses its significance in this model. This preference for cash compensation is tempered when political sensitivity is interacted with bargaining power, measured by the percentage of defense contracts. However, this is not the case when bargaining power is proxied for in other ways. This suggests that politically sensitive contractors are associated with larger portions of cash compensation unless a large portion of their contracts are derived from defense.

Similarly, Table 10 further examines the impact of political sensitivity on the structure of pay through the proportion of compensation comprised of equity. In Table 10, the firm's CEO compensation equity ratio is regressed on political sensitivity, bargaining power, and the interaction between bargaining power and political sensitivity while controlling for CEO tenure, CEO ownership, firm sales, ROA, BTM, standard deviation of returns, S&P 500 inclusion, and governance controls including institutional ownership, E-Index, and the percentage of independent directors as illustrated in eq. (6).

$$\begin{aligned}
 \text{Equity Ratio} = & \beta_0 + \beta_1 * \text{Political Sensitivity} + \beta_2 * \text{Bargaining Power} + \beta_3 \\
 & * \text{Political Sensitivity} * \text{Bargaining Power} + \beta_4 * \text{Ln}(\text{Tenure}) + \beta_5 \\
 & * \text{Std Dev of Returns} + \beta_6 * \text{Ln}(\text{Sales}) + \beta_7 * \text{SP500} + \beta_8 * \text{BTM} + \beta_9 \\
 & * \text{ROA} + \beta_{10} * \text{E - Index} + \beta_{11} * \% \text{Independent Directors} + \beta_{12} \\
 & * \text{Institutional Ownership} + \beta_{13} * \text{CEO Ownership} \\
 & + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}
 \tag{6}$$

Similar to previous results, in four of the five specifications (corresponding to the five proxies of bargaining power) of Table 10, political sensitivity is negatively and significantly associated with the equity portion of compensation. This indicates that those government contractors with the greatest political sensitivity pay compensation composed of significantly lower portions of equity. In addition, this relation is not affected by the bargaining power of the contractors. This preference for greater portions of cash compensation and lower portions of equity compensation provides support for H2 and the political limitations on equity based pay.

The Impact of Political Sensitivity on CEO Wealth-Performance Sensitivity

Finally, in Table 11 wealth-performance sensitivity is also regressed on political sensitivity, bargaining power, and the interactions between political sensitivity and bargaining power while controlling for CEO tenure, firm sales, ROA, BTM, stock returns, standard deviation of returns, and year and industry fixed effects as illustrated in eq. (7). Each column of Table 11 corresponds to a measure of contractor bargaining power.

(7)

$$\begin{aligned}
 \text{Equity Ratio} = & \beta_0 + \beta_1 * \text{Political Sensitivity} + \beta_2 * \text{Bargaining Power} + \beta_3 \\
 & * \text{Political Sensitivity} * \text{Bargaining Power} + \beta_4 * \text{Ln}(\text{Tenure}) + \beta_5 \\
 & * \text{Std Dev of Returns} + \beta_6 * \text{Ln}(\text{Sales}) + \beta_7 * \text{Annual Return} + \beta_8 * \text{BTM} \\
 & + \beta_9 * \text{ROA} + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

There is some evidence that the most politically sensitive government contractors are characterized by lower CEO compensation wealth-performance sensitivity indicated by negative and significant coefficients of political sensitivity in columns 2 and 4, providing support for H3. This relation is mitigated when the politically sensitive contractor has significant bargaining power in terms of contracts derived from defense and political campaign contributions. Taken together with prior results, this suggests that firms subject to greater government and watchdog scrutiny due to their highly visible government contracts are paid less in total and excess compensation than their less sensitive, government contractor peers. However, these sensitive contractors appear to be compensated for lower pay through smaller portions of at-risk pay and greater portions of cash compensation leading to lower long-term wealth performance sensitivity. These relations are weakened when the politically sensitive contractor has significant bargaining power to protect their future contract revenues.

Supplemental Analyses

Propensity Score Matching

To address the confounding effects of covariates that predict both executive compensation and the probability of being classified as politically sensitive, analysis based on matched propensity scores is utilized. Table 12 tabulates the resulting coefficients from the estimation of the propensity score for the likelihood of being included in the politically sensitive sample based on CEO tenure, firm sales, BTM, annual return, ROA, percentage of contracts derived from defense, standard deviation of returns, year, and industry. As shown in Table 12, while tenure, sales, ROA, and percentage of contracts derived from defense are positively and significantly linked with politically sensitive government contractor firms, BTM and firm risk (standard deviation of returns) are negatively and significantly linked with political sensitivity.

Politically sensitive government contractors are matched to the government contractor control group using propensity score matching techniques. Table 13 presents results illustrating the impact of political sensitivity on excess compensation, compensation composition, and wealth-performance sensitivity based on propensity score matched analysis. In the first specification, kernel matching is utilized in which all observations are included but each control observation is weighted based on its propensity score's proximity to the treatment observation's propensity score. With kernel matching, a statistically significant, negative relation is observed between political

sensitivity and excess executive compensation.²⁵ In addition, there is evidence that political sensitivity is also negatively and significantly related to total compensation and wealth-performance sensitivity. Similarly, when utilizing stratification matching in which treatment observations are only matched to control observations with propensity scores within the same optimal block of propensity scores based on block mean propensity scores, a statistically significant, negative relation is observed between political sensitivity and excess executive compensation. There is also a negative relation between political sensitivity and the portion of equity-based compensation providing further evidence of prior results.

Excess Compensation as a Determinant of Government Contract Awards

If the observed impact of political sensitivity on excess compensation levels is a result of government contractors who are heavily dependent on large contracts changing their behavior to protect future revenue, one would expect CEO excess compensation to significantly impact the receipt of future contract awards. Table 14 presents results illustrating this impact in which contract awards are regressed on prior year excess compensation, the natural log of firm sales, the percentage of firm revenue comprised of contract awards (contract importance), political campaign contributions, and year and industry fixed effects using eq. (8).

(8)

Contract Awards

$$= \beta_0 + \beta_1 * \text{Excess Compensation}_{t-1} + \beta_2 * \text{Ln(Sales)}_{t-1} + \beta_3 * \text{Contract Importance}_{t-1} + \beta_4 * \text{Political Donations}_{t-1} + \text{Year \& Industry FEs} + \varepsilon$$

In the first two columns of Table 14, the level of contract awards is used as the dependent variable. In the third column, the change in contract awards is utilized. Finally, in the fourth column the probability of crossing the 90th percentile of contract awards for the first time (i.e. entering the politically sensitive sample) is examined. As predicted, there is a statistically significant negative relation between prior year excess compensation and future contract awards providing further evidence that government contractors pay less excess compensation to protect future contract revenue. Although, a significant impact is not observed when considering the change in contracts awarded, there is a negative and significant relation between prior excess compensation and the likelihood of entering the politically sensitive sample. These results illustrate why politically sensitive contractors might be motivated to structure their compensation practices in a way that minimizes external criticism.

²⁵ Results for excess compensation are robust to being calculated using both the ExecuComp universe as well as using only the government contractor sample. This is true for both kernel and stratification matching.

In Table 15, the sample is restricted to contractors with above mean levels of bargaining power to examine the robustness of the relation between excess compensation paid and future contracts received when a firm has significant bargaining power. In the first specification, contractors are restricted to those with above mean proportions of contracts not subject to competition. In the second column, contractors with above mean proportions of contracts derived from defense are represented. Finally, in the last column, bargaining power is proxied for using contractors with above mean political donations. There is a negative relation between the change in excess compensation paid and contracts awarded in the second specification. However, there is not a significant impact of the level of excess compensation paid on future contracts awarded when contractors have significant bargaining power as shown in each specification. This provides evidence of the mitigating impact of contractor bargaining power on the compensation costs associated with political sensitivity.

Political Sensitivity and Negative Publicity

Finally, if politically sensitive contractor firms aim to structure their compensation practices in a way that minimizes external criticism, this may be reflected in their Say on Pay results. In Table 16, there is evidence that politically sensitive firms are successful in avoiding at least some negative publicity through their Say on Pay results. Say on Pay approval is regressed on prior year's Say on Pay support, political sensitivity, excess compensation, the interaction between political sensitivity and excess compensation, the equity percentage of pay, annual stock return, standard deviation of returns, and year and industry fixed effects using eq. (9).

(9)

Say on Pay Support

$$\begin{aligned}
 &= \beta_0 + \beta_1 * \text{Say on Pay Support}_{t-1} + \beta_2 * \text{Political Sensitivity} + \beta_3 \\
 &* \text{Excess Compensation} + \beta_4 * \text{Political Sensitivity} \\
 &* \text{Excess Compensation} + \beta_5 * \text{Equity Ratio} + \beta_6 * \text{Std Dev of Returns} \\
 &+ \beta_7 * \text{Annual Return} + \beta_8 * \text{ROA} + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

When these firms pay excess compensation, they are criticized less than similar firms. As expected, excess compensation is negatively and significantly related to Say on Pay results. However, this negative impact is lessened when the government contractor is highly politically sensitive as evidenced by the positive and significant coefficient on the interaction of political sensitivity with excess compensation. This suggests that politically sensitive government contractors are effective at structuring their compensation in a way that minimizes at least some external criticism.

Conclusion

In support of the political costs hypothesis, this analysis provides evidence of the constraints on compensation that arise due to the political sensitivity of government contractor firms. Specifically, results suggest that firms generally pay less excess compensation to their CEO when contracts are large and comprise an important component of firm revenues. This is consistent with firms altering their behavior to save contract revenues due to the threat of increased government and media scrutiny. However, firms with greater bargaining power do not pay as much less excess compensation as a result of political sensitivity, and in fact, may even pay more in excess compensation. Furthermore, in support of the political costs of equity compensation, these politically sensitive firms compensate their CEOs with larger portions of cash compensation and smaller portions of equity compensation, coupled with lower long-term wealth-performance sensitivity, regardless of the amount of contractor bargaining power.

These findings are important for a number of reasons. First, they provide additional perspectives on the determinants of executive compensation while revealing an additional mechanism of compensation stakeholder monitoring in the form of increased scrutiny due to political sensitivity. The findings also provide insight into the limitations of this additional oversight that arises due to effects of contractor bargaining power. In addition, the results add to the literature that considers the importance and impact of the government's role in the private sector through the growing federal contracts market. Finally, it is worth noting, as discussed by Joskow et al. (1996), that legislative efforts to increase the visibility of executive compensation may increase the political sensitivity, and thus compensation constraints, of firms in all industries.

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Appendix

Table 1: Descriptive statistics for government contractor sample, 2000-2011

Firm characteristics, including Market Cap (in millions), S&P 500 indicator, Revenue (in millions), ROA, BTM, and Annual Returns are collected from Compustat and CRSP. Tenure, age, and compensation measures (in thousands) including salary, bonus, cash compensation, equity compensation, and total compensation are collected from ExecuComp. Expected and excess compensation are computed using the methodology of Core et al. (2008). Excess compensation (govt) is computed using only the sample of government contractors. Governance measures including G-Index, E-Index, CEO duality, CEO ownership, board size, independent, inside, and grey board members are collected from RiskMetrics. Ability Score is collected from the Managerial Ability Index of Demerjian et al. (2012). Institutional ownership is calculated using Thompson 13-f data. The table reports a two-tailed t-test for differences in the means of the two groups.

	Politically Sensitive Contractor Firms					Government Contractor Control Firms				
	N	Mean	Median	P10	P90	N	Mean	Median	P10	P90
Market Cap	420	30,825.40***	7,696.79	782.66	97,464.75	3753	8,927.49	1,872.22	304.05	16,966.88
S&P 500	420	62.86%***	1.00	0.00	1.00	3753	29.44%	0.00	0.00	1.00
Revenue	420	25,641.12***	11,062.85	764.77	67,307.50	3753	6,586.18	1,505.37	241.10	13,931.00
Log(Sales)	420	9.11***	9.31	6.64	11.12	3753	7.43	7.32	5.49	9.54
BTM	420	0.67*	0.67	0.37	0.96	3747	0.69	0.70	0.32	1.01
ROA	420	5.65%***	5.33%	1.02%	11.48%	3753	2.84%	3.92%	-4.37%	11.54%
Annual Return	420	11.78%	9.13%	-29.04%	51.58%	3753	13.48%	7.34%	-40.88%	65.71%
Std Dev of Returns	420	9.18%***	7.91%	4.14%	15.16%	3753	11.74%	9.97%	4.92%	20.16%
CEO Salary	420	1,017.02***	971.91	554.17	1,566.35	3753	732.77	675.00	363.46	1,107.20
CEO Bonus	420	1,030.01***	0.33	0.00	3,125.00	3753	561.62	0.00	0.00	1,368.68
CEO Total Comp	420	9,457.24***	6117.51	1,485.10	20,065.09	3753	5,987.64	3,302.17	882.45	12,013.69
Expected Comp	420	8,755.52***	6594.73	2,145.51	20,525.51	3753	4,042.05	2,943.00	1,431.74	7,912.19
Excess Comp	420	701.72***	68.91	-5,462.47	6,371.73	3753	1,945.59	163.98	-1,741.14	5,165.24
Δ in Excess Comp	373	36.38%	-19.06%	-215.07%	242.52%	3249	167.19%	-33.10%	-290.23%	198.80%
Excess Comp (govt)	420	1,371.21*	224.95	-3,603.30	7,237.73	3753	2,092.05	178.50	-1,649.52	5,425.83
Ind & Size Adj Comp	420	2,701.11***	558.88	-3,149.19	9,954.87	3753	1,604.06	0.00	-2510.09	4,749.72
Cash Ratio	420	31.40%***	24.28%	9.01%	61.68%	3753	37.60%	30.11%	10.21%	83.91%
Equity Ratio	420	47.77%	52.81%	0.00%	76.60%	3753	45.76%	50.95%	0.00%	79.51%
CEO Age	393	57.78***	58.00	50.00	65.00	2971	55.86	56.00	47.00	65.00
CEO Tenure	420	6.91	4.92	1.29	14.84	3753	7.12	5.25	1.34	15.01
Ability Index	346	-0.01***	-0.02	-0.14	0.14	2958	0.01	0.00	-0.16	0.19
Female CEO	393	3.31%	0.00	0.00	0.00	2972	2.32%	0.00	0.00	0.00

Table 1. Continued.

	Politically Sensitive Contractor Firms					Government Contractor Control Firms				
	N	Mean	Median	P10	P90	N	Mean	Median	P10	P90
G-Index	397	7.29	7.00	5.00	10.00	3141	7.21	7.00	5.00	10.00
E-Index	397	2.55	3.00	1.00	4.00	3141	2.64	3.00	1.00	4.00
Number of Directors	392	10.62***	11.00	7.00	14.00	3028	9.19	9.00	6.00	12.00
Inside Directors	392	13.33%***	12.50%	7.69%	21.43%	3028	16.93%	14.29%	9.09%	28.57%
Grey Directors	392	7.14%***	0.00%	0.00%	19.05%	3028	8.65%	0.00%	0.00%	25.00%
Independent Directors	393	80.88%***	83.33%	66.67%	91.67%	3001	75.54%	77.78%	57.14%	90.00%
Dual CEO/Chair	392	53.57%***	1.00	0.00	1.00	3028	41.94%	0.00	0.00	1.00
CEO Ownership	392	1.51%**	0.37%	0.02%	3.95%	2968	2.08%	0.63%	0.05%	4.23%
Institutional Ownership	420	72.62%	71.54%	51.03%	96.23%	3742	73.37%	77.67%	42.47%	99.26%

Table 2: Government contractor sample by year and industry

Panel A provides descriptive statistics for firm annual government contract dollars (Contract Visibility) and firm annual contract dollars as a percentage of firm revenue (Contract Importance). In addition, three measures of Bargaining Power are included: the percentage of firm annual contract dollars derived from defense contracts, the percentage of firm annual contract dollars not subject to competition, and annual firm political campaign contributions. Panel B examines contract descriptive statistics by firm-year. Panel C presents the industry breakdown of the government contractor sample compared with the ExecuComp universe based on the Fama-French 12 classification. The third column offers the percentage of each industry in the ExecuComp universe that is comprised of government contractors.

Panel A: Government Contract Sample Descriptive Statistics

	N	Mean	Median	P10	P90
Number of Contracts per Year	4173	540	27	2	750
Contract Dollars per Year	4173	68,192,274	1,529,918	26,000	68,957,714
Contract Dollars % of Revenue	4173	1.82%	0.09%	0.00%	2.34%
Defense Contract Dollars	4173	48.45%	47.17%	0.00%	100.00%
Contract Dollars Not Subject to Competition	4173	38.07%	24.45%	0.00%	100.00%
Annual Campaign Contributions (where >0)	782	254,719	167,400	24,249	529,800

Panel B: Government Contract Dollars by Firm-Year

	N	Mean	Median	P10	P90
2000	250	36,234,665	1,921,396	46,994	40,225,725
2001	260	40,871,844	1,607,878	52,915	38,385,387
2002	276	42,902,032	1,500,871	40,585	46,915,556
2003	298	46,852,066	1,924,506	47,112	48,664,167
2004	301	47,133,142	1,638,175	22,398	59,209,038
2005	335	66,608,668	2,392,433	16,927	79,281,437
2006	354	68,060,631	1,925,971	13,750	75,690,563
2007	386	86,546,551	1,552,480	18,600	71,271,618
2008	446	83,885,458	1,127,680	15,729	80,311,091
2009	434	88,049,827	1,122,938	20,083	90,776,297
2010	433	88,484,003	1,350,297	21,781	81,045,476
2011	400	77,841,530	1,455,745	26,260	90,142,786

Table 2. Continued.

Panel C: Government Contractor Firms by Industry

	ExecuComp Universe	Government Contractors Sample	Politically Sensitive Sample	Government Contractors in Industry
Consumer NonDurables	5.81%	3.74%	7.38%	13.97%
Consumer Durables	2.85%	1.77%	0.71%	13.48%
Manufacturing	12.21%	13.92%	20.48%	24.73%
Oil, Gas, and Coal	4.24%	0.98%	2.62%	5.02%
Chemicals	3.07%	2.85%	0.24%	20.14%
Business Equipment	18.56%	24.99%	20.71%	29.20%
Telephone and Television Transmission	2.28%	3.67%	5.71%	34.85%
Utilities	4.91%	9.51%	5.48%	42.06%
Wholesale, Retail, and Some Services	11.51%	9.27%	8.81%	17.48%
Healthcare, Medical Equipment, and Drugs	7.53%	9.06%	6.43%	26.10%
Finance	15.51%	7.84%	10.48%	10.95%
Other	11.52%	12.39%	10.95%	23.32%

Table 3: Excess Compensation Methodology

The cross-sectional regression used for the calculation of excess compensation using the methodology of Core et al. (2008) is presented in columns 2 and 3. In column 2, the ExecuComp universe is used while the sample is restricted to the government contractor sample in column 3. Column 1 shows Core's et al. coefficients used to model their measure of excess compensation. CEO total compensation (TDC1) and tenure are collected from ExecuComp. S&P 500, Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. S&P 500 is an indicator variable equal to 1 if a firm is included in the S&P 500. Year and industry fixed effects are utilized as well. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1.

	(1) Core et al. (2008)	(2) ExecuComp Universe	(3) Government Contractors
Dependent variable = log(total compensation)			
Log(Tenure)	-0.02	-0.003 (-0.416)	-0.012 (-0.508)
Log(Sales) T-1	0.42***	0.415*** (60.843)	0.368*** (15.931)
SP500	0.12**	0.091*** (4.530)	0.104** (2.216)
BTM T-1	-0.99***	-0.628*** (-17.592)	-0.475*** (-4.886)
Annual Return	0.27***	0.138*** (6.362)	0.036 (1.012)
Annual Return T-1	0.16***	0.099*** (6.777)	0.059* (1.821)
ROA	-1.00***	-0.226*** (-3.004)	-0.145 (-0.926)
ROA T-1	-0.45**	-0.160*** (-2.592)	-0.035 (-0.324)
Year & Industry FE	Yes	Yes	Yes
Observations	12,090	19,241	4,173
R-squared	0.429	0.375	0.262

Table 4: Relation between Political Sensitivity, Bargaining Power, and CEO Total Compensation

Each column evaluates the impact of political sensitivity on government contractor total CEO compensation while considering different measures of bargaining power. In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if a firm's annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). Tenure is collected from ExecuComp. S&P 500, Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. S&P 500 is an indicator variable equal to 1 if a firm is included in the S&P 500. Year and industry fixed effects are utilized as well. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Coefficients for political donations and the industry makeup of contractors have been multiplied by 10^5 .

Dependent variable = log(total compensation)	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-0.642*** (-3.704)	-0.564** (-2.539)	-0.444** (-2.318)	-0.416*** (-3.607)	-0.842** (-2.330)
Bargaining Power (Non-Compete %)	0.036 (0.834)				
Sensitivity*Bargaining Power	0.562** (2.284)				
Bargaining Power (Defense %)		-0.008 (-0.206)			
Sensitivity*Bargaining Power		0.367 (1.151)			
Bargaining Power (HHI)			-0.659** (-2.551)		
HHI Squared			0.547** (2.210)		
Sensitivity*Bargaining Power			0.572 (1.317)		
Bargaining Power (Polit Contributions)				0.018 (1.318)	
Sensitivity*Bargaining Power				0.102 (0.930)	
Bargaining Power (Contractor % of Ind)					-0.403*** (-3.195)
Sensitivity*Bargaining Power					1.684* (1.682)
Standard Deviation (Returns)	-0.370 (-1.220)	-0.355 (-1.174)	-0.247 (-0.804)	-0.353 (-1.165)	-0.432 (-1.367)
Year FEs & Core et al. (2008) Controls	Yes	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	No	Yes	No
Observations	4,173	4,173	4,173	4,173	4,173
R-squared	0.263	0.263	0.216	0.264	0.218

Table 5: Relation between Political Sensitivity, Bargaining Power, and CEO Excess Compensation (calculated using ExecuComp universe)

Excess compensation is the dependent variable and is calculated using the methodology of Core et al. (2008) with the coefficients produced in Column 2 of Table 3 using the ExecuComp universe. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Each column evaluates the impact of political sensitivity on government contractor CEO excess compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Ability Score is collected from the Managerial Ability Index of Demerjian et al. (2012). Governance measures including the E-Index and the percentage of grey board members are collected from RiskMetrics. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Dependent Variable = Excess Compensation (ExecuComp Universe)	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-4,114*** (-5.496)	-1,343 (-1.466)	-3,839*** (-2.999)	-3,026*** (-3.205)	-8,333*** (-2.678)
Bargaining Power (Non-Compete %)	-579.2 (-1.103)				
Sensitivity*Bargaining Power	5,223*** (4.222)				
Bargaining Power (Defense %)		-1,034* (-1.750)			
Sensitivity*Bargaining Power		64.31 (0.038)			
Bargaining Power (HHI)			-38.73 (-0.018)		
HHI Squared			-140.5 (-0.064)		
Sensitivity*Bargaining Power			5,054** (2.021)		
Bargaining Power (Polit Contributions)				-0.004** (-2.227)	
Sensitivity*Bargaining Power				0.059*** (3.353)	
Bargaining Power (Contractor % of Ind)					-994.0 (-0.817)
Sensitivity*Bargaining Power					18,939** (2.248)
Market Cap	0.044** (2.421)	0.045** (2.444)	0.050*** (2.695)	0.052** (2.510)	0.053*** (2.816)
Standard Deviation (Returns)	3,995 (0.927)	4,072 (0.946)	7,474* (1.761)	3,865 (0.904)	7,671* (1.772)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	No
Observations	4,173	4,173	4,173	4,173	2,579
R-squared	0.055	0.056	0.038	0.057	0.041

Table 6: Relation between Political Sensitivity, Bargaining Power, and CEO Excess Compensation With Governance Controls (calculated using ExecuComp universe)

Excess compensation is the dependent variable and is calculated using the methodology of Core et al. (2008) with the coefficients produced in Column 2 of Table 3 using the ExecuComp universe. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Each column evaluates the impact of political sensitivity on government contractor CEO excess compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Ability Score is collected from the Managerial Ability Index of Demerjian et al. (2012). Governance measures including the E-Index and the percentage of grey board members are collected from RiskMetrics. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Dependent Variable = Excess Compensation (ExecuComp Universe)	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-3,471*** (-2.982)	-5,165** (-2.360)	-3,860*** (-2.699)	-3,016*** (-3.382)	-1,368 (-0.483)
Bargaining Power (Non-Compete %)	-535.2 (-0.645)				
Sensitivity*Bargaining Power	8,765** (2.151)				
Bargaining Power (Defense %)		-1,341* (-1.670)			
Sensitivity*Bargaining Power		7,421** (2.125)			
Bargaining Power (HHI)			318.6 (0.083)		
HHI Squared			-605.8 (-0.168)		
Sensitivity*Bargaining Power			5,647* (1.847)		
Bargaining Power (Polit Contributions)				-0.004* (-1.880)	
Sensitivity*Bargaining Power				0.069*** (3.625)	
Bargaining Power (Contractor % of Ind)					-1,637 (-0.903)
Sensitivity*Bargaining Power					-333.3 (-0.046)
Market Cap	0.021 (0.960)	0.020 (0.933)	0.034* (1.690)	0.026 (1.107)	0.033 (1.608)
Standard Deviation (Returns)	12,727 (1.640)	12,579* (1.660)	15,779** (1.964)	12,297 (1.622)	15,881** (1.999)
E-Index	-285.4 (-0.859)	-299.0 (-0.879)	-233.7 (-0.939)	-282.4 (-0.865)	-234.5 (-0.943)
Ability Score	3,459* (1.800)	3,310* (1.725)	1,525 (0.986)	3,720* (1.868)	1,838 (1.187)
Percent Grey Directors	7,777* (1.773)	7,571* (1.771)	7,697* (1.929)	7,654* (1.747)	7,741* (1.921)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	No
Observations	2,579	2,579	2,579	2,579	2,579
R-squared	0.055	0.056	0.034	0.046	0.034

Table 7: Relation between Political Sensitivity, Bargaining Power, and CEO Excess Compensation (calculated using Government Contractor sample)

Excess compensation is the dependent variable and is calculated using the methodology of Core et al. (2008) with the coefficients produced in Column 3 of Table 3 using the government contractor sample. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Each column evaluates the impact of political sensitivity on government contractor CEO excess compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Ability Score is collected from the Managerial Ability Index of Demerjian et al. (2012). Governance measures including the E-Index and the percentage of grey board members are collected from RiskMetrics. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1.

Dependent Variable = Excess Compensation (Government Contractors)	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-3,539*** (-3.066)	-5,420** (-2.500)	-3,216** (-2.297)	-3,059*** (-3.456)	2.590 (0.001)
Bargaining Power (Non-Compete %)	-476.6 (-0.576)				
Sensitivity*Bargaining Power	8,556** (2.106)				
Bargaining Power (Defense %)		-1,464* (-1.800)			
Sensitivity*Bargaining Power		7,700** (2.208)			
Bargaining Power (HHI)			1,056 (0.271)		
HHI Squared			-819.9 (-0.224)		
Sensitivity*Bargaining Power			2,533 (0.865)		
Bargaining Power (Polit Contributions)				-0.003* (-1.680)	
Sensitivity*Bargaining Power				0.065*** (3.490)	
Bargaining Power (Contractor % of Ind)					-406.7 (-0.223)
Sensitivity*Bargaining Power					-5,885 (-0.820)
Market Cap	0.036* (1.727)	0.036* (1.692)	0.036** (1.987)	0.041* (1.798)	0.036* (1.943)
Standard Deviation (Returns)	12,630 (1.628)	12,495* (1.650)	15,477* (1.928)	12,295 (1.622)	15,447* (1.947)
E-Index	-378.0 (-1.133)	-394.1 (-1.154)	-357.1 (-1.430)	-372.8 (-1.136)	-356.9 (-1.433)
Ability Score	3,686* (1.921)	3,516* (1.835)	1,914 (1.238)	3,946** (1.982)	2,123 (1.373)
Percent Grey Directors	7,755* (1.768)	7,529* (1.762)	6,788* (1.723)	7,656* (1.748)	6,798* (1.708)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	No
Observations	2,579	2,579	2,579	2,579	2,579
R-squared	0.045	0.046	0.030	0.046	0.030

Table 8: Relation between Political Sensitivity, Bargaining Power, and CEO Excess Compensation (calculated using Industry and Size Adjusted Compensation)

Excess compensation is the dependent variable and is calculated as the difference between a firm's total compensation (TDC1) and median total compensation for its corresponding size tercile in its 2 digit SIC industry group. Each column evaluates the impact of political sensitivity on government contractor CEO excess compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Ability Score is collected from the Managerial Ability Index of Demerjian et al. (2012). Governance measures including the E-Index and the percentage of grey board members are collected from RiskMetrics. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1.

Dependent Variable = Excess Compensation (Size and Industry Adjusted)	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-3,208*** (-3.057)	-2,000 (-1.166)	-1,539 (-1.077)	-2,217*** (-2.603)	-4,014 (-1.364)
Bargaining Power (Non-Compete %)	-1,057 (-1.287)				
Sensitivity*Bargaining Power	6,523* (1.939)				
Bargaining Power (Defense %)		-1,257 (-1.591)			
Sensitivity*Bargaining Power		1,942 (0.648)			
Bargaining Power (HHI)			817.2 (0.214)		
HHI Squared			-368.7 (-0.103)		
Sensitivity*Bargaining Power			-1,198 (-0.411)		
Bargaining Power (Polit Contributions)				0.000 (0.247)	
Sensitivity*Bargaining Power				0.027 (1.611)	
Bargaining Power (Contractor % of Ind)					-2,758 (-1.579)
Sensitivity*Bargaining Power					6,683 (0.875)
Market Cap	0.069*** (3.767)	0.069*** (3.739)	0.073*** (4.302)	0.069*** (3.436)	0.072*** (4.172)
Standard Deviation (Returns)	13,855* (1.816)	13,551* (1.819)	16,261** (2.068)	13,875* (1.857)	16,190** (2.082)
E-Index	-392.0 (-1.218)	-406.6 (-1.233)	-393.1 (-1.634)	-373.9 (-1.178)	-383.6 (-1.597)
Ability Score	503.6 (0.269)	460.4 (0.246)	-564.6 (-0.375)	832.1 (0.427)	-347.3 (-0.231)
Percent Grey Directors	7,790* (1.807)	7,549* (1.798)	7,716** (1.988)	7,857* (1.823)	7,836** (1.998)
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	No
Observations	2,579	2,579	2,579	2,579	2,579
R-squared	0.083	0.083	0.059	0.082	0.059

Table 9: Relation between Political Sensitivity, Bargaining Power, and CEO Compensation Structure - Cash

The ratio of cash compensation to total compensation is the dependent variable where cash compensation includes salary and bonus. Each column evaluates the impact of political sensitivity on government contractor CEO cash compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Institutional ownership is collected from Thomson Reuters Institutional Holdings. Governance measures including E-Index, CEO ownership, and percentage of independent directors are collected from RiskMetrics. Tenure is collected from ExecuComp. S&P 500, Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1. Coefficients for political donations and the interaction of donations with political sensitivity have been multiplied by 10⁶.

Dependent Variable = Cash Ratio	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	0.179** (2.126)	0.407*** (2.865)	0.140 (1.371)	0.113* (1.737)	-0.014 (-0.077)
Bargaining Power (Non-Compete %)	-0.010 (-0.911)				
Sensitivity*Bargaining Power	-0.207 (-1.234)				
Bargaining Power (Defense %)		0.010 (0.999)			
Sensitivity*Bargaining Power		-0.438** (-2.456)			
Bargaining Power (HHI)			0.018 (0.329)		
HHI Squared			0.009 (0.166)		
Sensitivity*Bargaining Power			-0.041 (-0.190)		
Bargaining Power (Polit Contributions)				-0.002 (-0.111)	
Sensitivity*Bargaining Power				0.158 (0.518)	
Bargaining Power (Contractor % of Ind)					0.020 (0.571)
Sensitivity*Bargaining Power					0.421 (0.850)
Institutional Ownership	-0.130*** (-4.344)	-0.127*** (-4.248)	-0.149*** (-5.552)	-0.128*** (-4.250)	-0.150*** (-5.658)
E-Index	-0.017*** (-4.411)	-0.017*** (-4.475)	-0.018*** (-5.038)	-0.017*** (-4.460)	-0.018*** (-5.028)
Grey Directors	0.067 (1.639)	0.067 (1.638)	0.071* (1.751)	0.069* (1.669)	0.075* (1.835)
CEO Ownership	0.341*** (4.657)	0.338*** (4.597)	0.362*** (4.919)	0.340*** (4.665)	0.369*** (5.015)
Log(Tenure)	0.030*** (6.009)	0.031*** (6.206)	0.030*** (6.020)	0.030*** (5.984)	0.030*** (6.012)
Log(Sales)	-0.044*** (-9.506)	-0.044*** (-9.456)	-0.040*** (-10.564)	-0.044*** (-8.896)	-0.038*** (-10.302)

Table 9. Continued.

Dependent Variable = Cash Ratio	(1)	(2)	(3)	(4)	(5)
SP500	-0.039*** (-3.267)	-0.039*** (-3.255)	-0.038*** (-3.483)	-0.040*** (-3.304)	-0.038*** (-3.515)
BTM	0.198*** (8.978)	0.197*** (8.959)	0.218*** (11.321)	0.200*** (9.046)	0.214*** (11.302)
ROA	0.214*** (3.848)	0.213*** (3.826)	0.246*** (4.477)	0.214*** (3.836)	0.240*** (4.391)
Standard Deviation (Returns)	-0.140 (-1.478)	-0.141 (-1.494)	-0.172* (-1.937)	-0.142 (-1.503)	-0.158* (-1.795)
Year FEs	Yes	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	No	Yes	No
Observations	3,124	3,124	3,124	3,124	3,124
R-squared	0.292	0.293	0.253	0.292	0.253

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 10: Relation between Political Sensitivity, Bargaining Power, and CEO Compensation Structure - Equity

The ratio of equity compensation to total compensation is the dependent variable where equity compensation is composed of the total value of restricted stock granted, the total value of stock options granted, and long-term incentive payouts. Each column evaluates the impact of political sensitivity on government contractor CEO equity compensation while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Institutional ownership is collected from Thomson Reuters Institutional Holdings. Governance measures including E-Index, CEO ownership, and percentage of independent directors are collected from RiskMetrics. Tenure is collected from ExecuComp. S&P 500, Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Coefficients for political donations and the interaction of donations with political sensitivity have been multiplied by 10^5 .

Dependent Variable = Equity Ratio	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-0.303*** (-3.596)	-0.358* (-1.742)	-0.158 (-1.263)	-0.198*** (-2.807)	-0.360* (-1.896)
Bargaining Power (Non-Compete %)	-0.005 (-0.358)				
Sensitivity*Bargaining Power	0.289 (1.626)				
Bargaining Power (Defense %)		0.003 (0.292)			
Sensitivity*Bargaining Power		0.206 (0.815)			
Bargaining Power (HHI)			0.080 (1.269)		
HHI Squared			-0.145** (-2.238)		
Sensitivity*Bargaining Power			-0.154 (-0.607)		
Bargaining Power (Polit Contributions)				0.034 (1.202)	
Sensitivity*Bargaining Power				-0.568 (-1.237)	
Bargaining Power (Contractor % of Ind)					-0.130*** (-3.468)
Sensitivity*Bargaining Power					0.400 (0.830)
Institutional Ownership	0.141*** (4.283)	0.139*** (4.222)	0.194*** (6.484)	0.142*** (4.298)	0.192*** (6.528)
E-Index	0.006 (1.371)	0.006 (1.457)	0.005 (1.353)	0.006 (1.513)	0.006 (1.524)
Independent Directors	0.163*** (3.665)	0.160*** (3.599)	0.163*** (3.839)	0.162*** (3.652)	0.162*** (3.821)
CEO Ownership	-0.349*** (-4.148)	-0.335*** (-3.983)	-0.338*** (-3.926)	-0.340*** (-4.079)	-0.338*** (-3.939)
Log(Tenure)	-0.032*** (-5.993)	-0.033*** (-6.102)	-0.030*** (-5.693)	-0.033*** (-6.038)	-0.030*** (-5.539)
Log(Sales)	0.022*** (4.233)	0.022*** (4.240)	0.019*** (4.597)	0.021*** (3.857)	0.017*** (4.077)

Table 10. Continued.

Dependent Variable = Equity Ratio	(1)	(2)	(3)	(4)	(5)
SP500	0.062*** (4.652)	0.063*** (4.705)	0.060*** (4.890)	0.062*** (4.638)	0.060*** (4.813)
BTM	-0.234*** (-9.268)	-0.234*** (-9.241)	-0.263*** (-11.71)	-0.236*** (-9.333)	-0.258*** (-11.67)
ROA	-0.330*** (-4.105)	-0.329*** (-4.093)	-0.355*** (-4.492)	-0.330*** (-4.101)	-0.351*** (-4.500)
Standard Deviation (Returns)	0.253** (2.494)	0.255** (2.507)	0.386*** (4.010)	0.257** (2.530)	0.347*** (3.587)
Year FEs	Yes	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	No	Yes	No
Observations	3,124	3,124	3,124	3,124	3,124
R-squared	0.202	0.202	0.159	0.202	0.159

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 11: Relation between Political Sensitivity, Bargaining Power, and CEO Wealth-Performance Sensitivity

Wealth-Performance Sensitivity is the dependent variable and is defined as the change in the value of the CEO's firm-specific wealth from direct stock holdings and options for a one thousand dollar change in firm value. Each column evaluates the impact of political sensitivity on government contractor CEO wealth-performance sensitivity while considering Bargaining Power. Political Sensitivity is the interaction of High Visibility (an indicator equal to 1 if firm annual contract dollars are in the top decile) and Contract Importance (the portion of a firm's revenue comprised of contracts). In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using Herfindahl industry concentration. In column 4, Bargaining Power is proxied for using firm annual political campaign contributions. Finally, in column 5, the percentage of each 2 digit SIC industry group comprised of government contractors is used to proxy for Bargaining Power. Tenure is collected from ExecuComp. Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Coefficients for political donations have been multiplied by 10^5 .

Dependent Variable = Wealth Performance Sensitivity	(1)	(2)	(3)	(4)	(5)
Political Sensitivity	-0.916 (-1.321)	-1.854*** (-4.571)	0.592 (0.643)	-1.075*** (-2.635)	-0.056 (-0.046)
Bargaining Power (Non-Compete %)	-0.316* (-1.848)				
Sensitivity*Bargaining Power	-0.113 (-0.131)				
Bargaining Power (Defense %)		0.007 (0.042)			
Sensitivity*Bargaining Power		1.777* (1.781)			
Bargaining Power (HHI)			3.285*** (3.897)		
HHI Squared			-3.662*** (-4.513)		
Sensitivity*Bargaining Power			-4.612*** (-2.916)		
Bargaining Power (Polit Contributions)				0.012 (0.530)	
Sensitivity*Bargaining Power*				0.422* (1.703)	
Bargaining Power (Contractor % of Ind)					-0.113 (-0.226)
Sensitivity*Bargaining Power					-2.293 (-0.645)
Standard Deviation (Returns)	7.627*** (3.512)	7.628*** (3.509)	8.621*** (4.352)	7.622*** (3.508)	9.067*** (4.625)
Log(Sales)	-0.468*** (-8.247)	-0.462*** (-8.233)	-0.452*** (-9.243)	-0.469*** (-7.561)	-0.451*** (-9.061)
BTM	1.228*** (3.520)	1.257*** (3.547)	0.814*** (2.999)	1.251*** (3.552)	0.707** (2.556)
Annual Return	-0.322*** (-2.793)	-0.321*** (-2.789)	-0.293*** (-2.579)	-0.322*** (-2.781)	-0.285** (-2.513)
ROA	-0.985 (-1.189)	-0.974 (-1.174)	-0.990 (-1.176)	-0.960 (-1.157)	-0.908 (-1.091)
Log(Tenure)	-0.220*** (-2.833)	-0.223*** (-2.861)	-0.231*** (-2.809)	-0.218*** (-2.803)	-0.218*** (-2.666)

Table 11. Continued.

Dependent Variable = Wealth Performance Sensitivity	(1)	(2)	(3)	(4)	(5)
Year FEs	Yes	Yes	Yes	Yes	Yes
Industry FEs	Yes	Yes	No	Yes	No
Observations	4,173	4,173	4,173	4,173	4,173
R-squared	0.122	0.122	0.096	0.122	0.093

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 12: Estimation of the Propensity Score

Propensity scores are developed based on the propensity to be included in the politically sensitive sample where the treatment is equal to one if a firm is deemed politically sensitive. Tenure is collected from ExecuComp. Sales, ROA, BTM, and Annual Returns are collected from Compustat and CRSP. Standard errors are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

ESTIMATION OF THE PROPENSITY SCORE	
Treatment: Political Sensitivity	
Log(Tenure)	0.066* (0.034)
Log(Sales) _{T-1}	0.332*** (0.019)
BTM _{T-1}	-0.235* (0.140)
Annual Return _{T-1}	-0.014 (0.048)
ROA _{T-1}	1.168** (0.500)
Defense % of Contracts	0.701*** (0.065)
Std Dev (Monthly Returns)	-0.971* (0.535)
Matched by Year & Industry	Yes
Observations	4173
R-squared	0.188

Standard errors reported in parentheses

Table 13: Propensity Score Matched Sample Average Treatment Effects

Average Treatment Effects are reported for the effect of political sensitivity on excess compensation (calculated using both the ExecuComp universe and the government contractor sample), total compensation, the cash and equity portions of compensation, and CEO wealth performance sensitivity. Propensity scores are developed based on the propensity to be included in the politically sensitive sample where the treatment is equal to one if a firm is deemed politically sensitive. Year and industry matched propensity scores are developed on the basis of tenure, sales, ROA, BTM, annual returns, standard deviation of returns, and the percentage of contracts derived from defense. T-stats are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1.

Propensity Score Matched Sample Results - Average Treatment Effects of Political Sensitivity				
	Kernel Matching		Stratification Matching	
	<u>N treatment</u>	<u>N control</u>	<u>N treatment</u>	<u>N control</u>
	420	3748	416	3606
Residual (Excess) Compensation	-1344.28**		-3237.67***	
	(-1.98)		(-3.16)	
Residual (Excess) Compensation - Govt	-1231.24*		-3101.69***	
	(-1.92)		(-3.17)	
Ln(Total Compensation)	-0.35***		0.08	
	(-2.88)		(0.55)	
Cash Percentage of Pay	-0.01		-0.00	
	(-0.69)		(-0.06)	
Equity Percentage of Pay	-0.02		-0.04**	
	(-0.83)		(-2.24)	
Wealth Performance Sensitivity	-0.45***		0.01	
	(-2.81)		-0.13	

Table 14: Relation between CEO Excess Compensation and Future Contract Awards

Contract Awards is the dependent variable and excess compensation is the independent variable of interest. It is calculated using the methodology of Core et al. (2008). These results are robust to both specifications of excess compensation, based on either the ExecuComp universe or the government contractor sample. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1. Coefficients for $\text{Ln}(\text{Sales})_{t-1}$ for Contract Award specifications (columns 1 and 2) have been multiplied by 10^7 . Coefficients for Firm Contract Importance $_{t-1}$ (Contracts/Revenue) for Contract Award specifications (columns 1 and 2) have been multiplied by 10^9 .

VARIABLES	(1) Contract Awards	(2)	(3) Δ in Contracts	(4) Pr(Becoming PS- Top Decile)
Excess Compensation $_{t-1}$	-1,222** (-2.074)	-997.1* (-1.660)	0.000 (0.883)	-0.00002** (-1.975)
Δ in Excess Compensation $_{t-1}$	-112.9 (-0.018)	2,936 (0.491)	-0.004 (-0.977)	0.000 (0.737)
$\text{Ln}(\text{Sales})_{t-1}$	5.123*** (7.721)	3.575*** (4.539)	0.957 (1.049)	1.111*** (5.344)
Firm Contract Importance $_{t-1}$ (Cntrcts/Rev)	2.158*** (5.288)	2.144*** (5.227)	-26.04* (-1.724)	50.79*** (3.432)
Political Campaign Contributions $_{t-1}$		323.9*** (3.755)	0.000 (1.012)	0.000 (1.455)
Industry and Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	2,752	2,752	2,752	2,626
R-squared	0.396	0.415	0.029	0.523

Robust t-statistics in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 15: Relation between CEO Excess Compensation and Future Contract Awards when Bargaining Power is High

Contract Awards is the dependent variable and excess compensation is the independent variable of interest. It is calculated using the methodology of Core et al. (2008). These results are robust to both specifications of excess compensation, based on either the ExecuComp universe or the government contractor sample. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Each specification is limited to the sample of contractors with above mean bargaining power. In column 1, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are not subject to competition. In column 2, Bargaining Power is proxied for using the percentage of firm annual contract dollars that are derived from defense contracts. In column 3, Bargaining Power is proxied for using firm annual political campaign contributions. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Coefficients for $\text{Ln}(\text{Sales})_{t-1}$ have been multiplied by 10^7 . Coefficients for $\text{Firm Contract Importance}_{t-1}$ have been multiplied by 10^9 .

DEPENDENT VARIABLE: Contract Awards	(1)	(2)	(3)
Above Mean Bargaining Power:	% Non-Compete	% Defense	Donations
Excess Compensation _{t-1}	1,433 (1.58)	-1,526 (-1.51)	1,315 (0.81)
Δ in Excess Compensation _{t-1}	1,047 (0.15)	-13,500** (-2.27)	736,537** (2.10)
$\text{Ln}(\text{Sales})_{t-1}$	2.80*** (5.18)	8.60*** (7.64)	1.55 (1.049)
Firm Contract Importance _{t-1} (Cntrcts/Rev)	1.54*** (4.07)	2.72*** (4.68)	12.92** (2.43)
Industry and Year Fixed Effects	Yes	Yes	Yes
Observations	1,138	1,435	204
R-squared	0.523	0.507	0.849

Table 16: Relation between Political Sensitivity, CEO Excess Compensation, and Say on Pay Support

Say on Pay percentage of support is the dependent variable. The interaction of political sensitivity and excess compensation is the independent variable of interest. Excess compensation is calculated using the methodology of Core et al. (2008). These results are robust to both specifications of excess compensation, based on either the ExecuComp universe or the government contractor sample. Specifically, the log of total compensation is regressed on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects and a fitted value (expected compensation) is calculated using the resulting coefficients. Excess compensation is then defined as the difference between actual total compensation and expected total compensation. Robust t-statistics are provided in parentheses and p-values are indicated with asterisks; *** p<0.01, ** p<0.05, * p<0.1. Coefficients for Excess Pay have been multiplied by 10⁵.

VARIABLES	(1) Say on Pay Support
Say on Pay Support _{t-1}	0.168* (1.954)
Political Sensitivity	0.111 (1.508)
Excess Compensation	-0.585*** (-8.165)
Political Sensitivity * Excess Compensation	0.0001*** (3.599)
Equity Percentage of Pay	-0.052 (-1.397)
Annual Return	0.096** (2.298)
ROA	0.500* (1.894)
Std Dev of Returns	0.186 (0.718)
Constant	0.294*** (2.824)
Industry and Year Fixed Effects	Yes
Observations	312
R-squared	0.349

Robust t-statistics in parentheses: *** p<0.01, ** p<0.05, * p<0.1

CHAPTER II
PAY FOR PERFORMANCE: IS ALL DISCLOSURE CREATED EQUAL?

Abstract

Given the increase in shareholder scrutiny of executive pay as well as Dodd-Frank mandated Say on Pay voting and firm Pay for Performance disclosure, firms have significant incentives to communicate their compensation in a manner that maximizes shareholder support and minimizes external criticism. This incentive and a lack of guidelines provided for Dodd-Frank mandated Pay for Performance disclosure has led to an increase in alternative pay definitions used in firm compensation disclosures. Firms argue that these measures better represent the relation between pay and performance and point to problems with SEC-mandated Summary Compensation Table (SCT) calculations representing “pay opportunity” and thus, greatly overstating compensation. This paper takes a first look at the most common types of compensation disclosure used in Pay for Performance discussions and analyzes the determinants of disclosing these measures and their effects on Say on Pay support. Results suggest that firms that disclose alternative pay measures in their Pay for Performance discussions do so for different reasons. While certain measures are characteristic of opportunistic disclosure and others are indicative of informative disclosure, there is often a significant positive impact of disclosing additional information related to compensation on Say on Pay approval when combating prior poor Say on Pay support. However, the impact seems to be most significant when peer comparisons are shared providing evidence of the value of reporting comparative pay.

Introduction

Many firms have begun to report supplemental pay measures including “Realized Pay” and “Realizable Pay” and use these measures to demonstrate Pay for Performance in their proxy statements. Both The Wall Street Journal and Forbes have weighed in on the drastic increase of the use of these measures reporting incredible recent growth in addition to expected future growth (Chasan, 2012; Ferracone, 2012). In 2015, Equilar identified the increase in alternative methods of calculating compensation as a key finding in their annual proxy disclosure analysis, citing that the use of realized and realizable compensation has grown from only 19% of S&P 100 firms in 2011 to 53% of S&P 100 firms in 2014. In support of supplemental pay measures, firms point to problems with SEC-mandated Summary Compensation Table (SCT) calculations. Firms contend that SCT figures represent “pay opportunity” and can greatly overstate compensation as they are dependent on grant-date value calculations of unvested grants of stock and stock options. They argue that alternative pay measures better represent the relation between pay and performance. This paper provides a first look at the propagation of alternative pay measures and investigates the determinates of utilizing these measures. Specifically, the study examines whether growth in voluntary reporting of these measures in Pay for Performance discussions is associated with factors characteristic of opportunistic or informative disclosure. Additionally, the impact on Say on Pay results associated with reporting these measures is evaluated.

In 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act was mandated and as part of this legislation, Section 953 states that firms are required to disclose “information that shows the relationship between executive compensation actually paid and the financial performance of the issuer.” Although Dodd-Frank requires firms to provide Pay for Performance disclosure, this has not yet been clarified and mandated by the SEC. As the definition of “compensation actually paid” is awaiting the SEC, many firms and proxy advisor groups have adopted their own measures of pay to be used in Pay for Performance disclosures. The two most common alternative measures of calculating pay are realized (“pocketed”) and realizable (“market-value”) compensation. These measures differ from SCT pay in that “pocketed” pay aims to capture cash the executives actually pocketed in a given year while “market-value” pay aims to capture a current snapshot of the updated market value of total compensation, including outstanding equity compensation awarded in prior years. A third approach, “peer comparisons”, utilizes market-value pay to present peer comparison percentile rankings. Each of these approaches aims to reflect pay actually received rather than potential grant-date value pay.

However, there are weaknesses inherent in each of these alternative pay measures. Because “pocketed” pay captures shares vested and options exercised in the year as opposed to grant date values, it is susceptible to fluctuations based solely on when an executive chooses to exercise his vested stock options. In addition, it includes vested and exercised awards from previous periods and generally does not take into account in-progress incentive awards. On the other hand, Pay for Performance disclosure using “market-value” pay utilizes current and outstanding stock and option awards based on their expected values at the end of the reporting period, rather than based on their grant date values. Although this method accounts for changes since the granting of the awards, it is sensitive to the valuation methodology which may not adequately account for not meeting performance goals, especially for sequential vesting contracts. Finally, even though the “peer comparison” group bases its comparisons on market-value pay, it only reports relative percentile comparisons of this pay measure. The details of each of these three alternative methods of presenting pay in Pay for Performance disclosures can vary significantly across firms since there is not a single accepted or mandated approach.

In addition to requiring disclosure on the relation between compensation and financial performance, i.e., Pay for Performance, Dodd-Frank mandates the implementation of Say on Pay, a non-binding shareholder advisory vote on approval of executive compensation as disclosed in the underlying proxy statement. Although these are non-binding votes, there are potential repercussions. Negative vote outcomes may lead to increased attention from investors, proxy advisor services, and the popular press (Ferri and Maber, 2013). In addition, failing say on pay can result in shareholder initiated lawsuits, risk of loss of re-election for directors, and ultimately changes to executive compensation (Larcker, McCall, & Tayan 2011; Illiev and Vitanova 2013; Ertimur, Muslu, and Ferri 2011). These costs of negative voting outcomes create an incentive for firms to persuade shareholders that pay presented in the proxy statement is justified though appropriately aligning pay with corporate performance.

This paper quantifies the impact of performance, compensation elements, Say on Pay results, and other firm and manager characteristics on the probability of voluntarily disclosing compensation using one of the three supplemental methods. Although there may be benefits to an alternative measure for pay, without mandated methods established, it is unclear that these measures offer any incremental information or that they are being used to better inform shareholders. This is important because differences in how pay is measured affect the comparability and reliability of Pay for Performance disclosure. The increase in the reporting of supplemental pay measures and peer comparisons may be a result of firms opportunistically aiming to justify to shareholders that pay is properly aligned with performance when it is not or it may be a result of firms communicating their Pay for Performance relationships in a more informative manner. Given the potential impact of Say on Pay on the incentives to voluntarily disclose alternative measures and given that additional disclosure is not costless to the firm, this study also considers if reporting these measures is beneficial for firms due to its impacts on Say on Pay results. Prior literature regarding the disclosure of alternative pay measures used in Pay for Performance disclosure has been limited to surveys of the characteristics of each, e.g., Larcker, McCall, and Tayan (2011).

For the analysis, a hand-collected sample of all S&P 500 firms is utilized for fiscal years 2011 through 2013. In order to consider the impact of past Say on Pay results which were mandated to begin in 2011, the analysis is restricted to the 2012 proxy period and beyond. Three subsamples of different discloser types are examined: 105 firm proxies that utilize “pocketed” compensation, 91 firm proxies that include “market-value” compensation, and 67 firm proxies that report “peer comparisons” of percentile rankings of market-value compensation in their Pay for Performance discussions. These firm-year observations are compared to 1,237 control S&P 500 proxies that do not voluntarily disclose alternative supplemental pay measures in Pay for Performance discussions.

Results suggest that firms disclose varying alternative pay measures for different reasons and that these disclosures are not created equal. Although all three sets of disclosers are associated with prior poor Say on Pay support, firms that report pocketed pay are also characterized by poor operating performance as well as large, increasing SCT pay but lower pocketed pay, compared with non-disclosers. Taken together, these results indicate these firms are opportunistically disclosing “pocketed” pay to minimize criticism of high SCT compensation following poor performance when the optics of “pocketed” pay are beneficial. Although firms that report market-value pay are associated with lower market value of outstanding equity pay and higher SCT pay compared with non-disclosers, they are also associated with lower excess compensation, which is inconsistent with opportunistic disclosure. Similarly, peer comparison reporters are related to factors associated with informative reporting; they are characterized by significantly less excess compensation than peer S&P 500 firms and are not influenced by performance or the beneficial optics of compensation measures compared with SCT pay.

These differences in determinants of reporting alternative pay measures are reflected in their varied effects on Say on Pay votes. Both the pocketed pay reporters

and market value reporters continue to experience significantly less Say on Pay support than non-reporter S&P 500 peers. However, peer comparison reporters receive significantly greater increases in Say on Pay support from the prior vote resulting in Say on Pay support that is no longer significantly different from peer firms, illustrating the benefit provided through the use of peer comparisons to justify compensation. Also, while there is a significant positive impact of disclosing peer comparisons and pocketed pay on the level of support for Say on Pay, reporting pocketed pay is not enough to increase the likelihood of getting past the 70% approval threshold, on average. However, when interacted with prior poor Say on Pay support as evidenced by receiving less than 70% approval in the prior year, reporting pocketed pay does decrease the likelihood of receiving less than 70% approval in the current year. This is consistent with a greater amount of firms that are concerned with not reaching the 70% threshold utilizing pocketed pay in their pay for performance disclosures; for those combating prior poor Say on Pay results, it is effective on average.

The findings in the paper contribute to the literature on CEO pay, Pay for Performance, Say on Pay, and peer comparisons. Ertimur, Muslu, and Ferri (2011) find that negative recommendations for Say on Pay lead to firms engaging with investors and making changes to their compensation plan. However, Illiev and Vitanova (2013) find that Say on Pay did not affect the level or composition of CEO pay but they do not consider its effect on disclosure behavior or other methods of response. Although Say on Pay may or may not directly affect the level or composition of CEO pay, it may cause firms to opportunistically disclose alternative pay measures justified by peer comparisons to convince shareholders pay appropriately reflects performance without making any material changes to compensation. However, on the other hand Say on Pay may also cause firms to informatively disclose alternative measures and peer comparisons as part of firms increasing their engagement with investors. This paper expands the possibilities in which firms may respond to Say on Pay and also contributes to the literature and debate on compensation regulation by drawing attention to the need for consistency in Pay for Performance disclosure.

Literature Review & Hypothesis Development

The number of firms reporting alternative pay measures has increased substantially in recent years (Equilar, 2015). Given this increase, two hypotheses are developed: Early adopters of these measures may be informative in their additional disclosures or they may be opportunistic in these disclosures. In addition, the incentives and type of disclosure may be different among alternatives for pay measures as well.

Compensation Disclosure and Opportunism

Many have argued that compensation is the result of powerful managers setting their own pay (Frydman & Jenter 2010, Murphy 2013). In line with this view, Armstrong,

Ittner, and Larcker's (2010) results are consistent with claims that compensation consultants provide a mechanism for CEOs of companies with weak governance to extract and justify excess pay. Similarly, Faulkender and Yang (2010) find that firms appear to select highly paid peers in their newly disclosed compensation peer groups to justify their CEO compensation. Cadman et al. (2012) also find that executive compensation restrictions associated with TARP influenced banks' participation in the program in a manner consistent with pay preservation. In addition to self-serving behavior in pay decisions, there is also evidence of opportunistic disclosure behavior among managers. Lewellen et al. (1996) suggest that firm managers display self-serving behavior in discretionary information disclosure decisions. Bamber et al. (2010) also find that individual manager influences play an economically significant role in their firms' voluntary disclosure choices.

This leads to the first hypothesis:

H1: Alternative compensation measures are opportunistic disclosures about Pay for Performance.

If firms are reporting alternative pay measures opportunistically, one would expect only firms with lower pocketed or market-value compensation, in comparison with peer firms, to use these measures. In addition, if opportunistic disclosers are trying to shroud poor Pay for Performance, these reporters are expected to be associated with lower levels of performance and higher levels of compensation compared with other similar firms.

Compensation Disclosure and Informativeness

Despite the apparent incentive to voluntarily disclose these alternatives in a self-serving manner, challenges inherent in executive compensation as disclosed in the Summary Compensation Table have been noted. This gives rise to the need for a more informative alternative method and disclosure. For example, Bettis et al. (2012) show that on average, firms overstate SCT grant date values by 50%. Mandated disclosures also often miss important components of the compensation decision methodology. De Angelis and Grinstein (2014) provide evidence of the heavy use of relative performance evaluation in firms' pay-setting processes despite a lack of disclosure provided to give context into this black box. In addition to a need for more informative compensation disclosure, agency theory provides support for informative rather than opportunistic disclosure, suggesting that executive compensation and disclosure are set effectively to maximize the value of the firm (Jensen & Meckling 1976). Fama (1980) argues that directors are incentivized to act in the best interest of shareholders through the competitive labor market. In line with this view, many have viewed compensation as a result of optimal contracting in a competitive market for managerial talent. For example, Larcker, Ormazabal, and Taylor (2011) find that shareholders react increasingly negative to executive pay regulation at firms with highly paid CEOs, consistent with the idea that the market perceives that the regulation of executive compensation results in less desirable contracts and potentially decreases the supply of high-qualified executives. Similarly, Kaplan (2008) argues that compensation is largely determined by market forces and Say on Pay voting will impose costs without providing significant

benefits. Perhaps disclosure of alternative measures is a potential way to offset these costs. By producing additional informative disclosure, firms may be able to prevent the adoption of suboptimal pay practices at the requests of ill-informed shareholders as Kaplan feared.

This leads to the second hypothesis:

H2: Alternative compensation measures are informative disclosures about Pay for Performance.

If firms are reporting alternative pay measures informatively, one would expect these firms to not be associated with negative compensation characteristics. Informative reporters are not expected to be associated with lower levels of performance combined with higher levels of compensation compared with other similar firms. In addition, informative disclosers may be associated with other positive changes to compensation if combating a lack of shareholder support for compensation.

Compensation Disclosure and Say on Pay

Results on the effectiveness of Say on Pay are mixed. Illiev and Vitanova (2013) find that Say on Pay did not affect the level or composition of CEO pay while Ertimur, Ferri, and Oesch (2012) find that proxy advisor recommendations are the key determinant of Say on Pay voting outcomes and these negative recommendations for Say on Pay lead to firms engaging with investors and making changes to their compensation plans. Neither of these studies consider alternative disclosures as a possible response or determinant of Say on Pay. Although Say on Pay may or may not directly affect the level or composition of CEO pay, it may cause firms to change their disclosure behavior, either opportunistically or informatively. It would likely be the goal of both opportunistic and informative disclosers to increase future Say on Pay voting results. If informative disclosers are effective and the market recognizes differences in informativeness and opportunism, one would expect to see better future Say on Pay results for these disclosers.

Data & Methodology

Three samples are formed on the basis of S&P 500 firms' Pay for Performance discussions in their annual proxy statements for 2012 through 2014 proxy seasons reflecting fiscal years 2011 through 2013. The samples include 105 firm proxies that utilize "pocketed" compensation, 91 firm proxies that include "market-value" compensation, and 67 firm proxies that report "peer comparisons" of percentile rankings

of market-value compensation in their Pay for Performance discussions.²⁶ These firms are compared with 1,237 control S&P 500 proxies that do not utilize alternative pay measures in Pay for Performance discussions.

Firms that report “pocketed” realized pay do so in a number of ways. Sometimes it is presented as a separate table and other times it is presented as an additional row in the Summary Compensation Table. The calculation generally always includes Salary, Bonus, and Non-equity Incentive Plan Compensation from the Summary Compensation Table. However, the treatment of Change in Pension Value and Nonqualified Deferred Compensation Earnings as well as Other Compensation varies across firms with some excluding and others including these components. Sometimes the calculation is more difficult to link to SCT pay. One common example is the reporting of W-2 earned income. The most significant difference from SCT compensation comes in the treatment of stock and option awards. Where the SCT measures these on a grant date value basis, “pocketed” compensation includes only the value of stock vested and options exercised during the period. For this study’s purposes, “pocketed” compensation is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Calculated “pocketed” compensation is utilized to overcome differences in how firms calculate their measures.

The appendix contains examples of three of the most common methods of reporting “pocketed” pay. In Figure 1, Allstate produces a separate “Supplemental Table of CEO Compensation Realized in 2011” under the heading of Pay for Performance. This table excludes Other Compensation but includes cash salary and bonus as well as shares vested and options exercised. In Figure 2, LCA Vision simply includes an additional column in the SCT titled “Total Realized Compensation.” The footnote explains that their calculation includes Other Compensation but values the bonus amount differently than the SCT. Finally, in Figure 3 GE produces a separate table that contains only W-2 values with no other information which is entitled “2011 Realized Compensation Table.”

The calculation of “market-value” realizable compensation is somewhat similar to that of “pocketed” realized compensation. The difference lies in the treatment of stock and option awards which are valued based on the end of the period rather than grant date based values or only values vested or exercised. While “market-value pay” aims to capture a current snapshot of the updated market value of total compensation, including outstanding equity compensation awarded in prior years, there are often differences in

²⁶ Realized compensation (“pocketed pay”) aims to capture cash the executives actually pocketed in a given year while realizable compensation (“market-value pay”) aims to capture a current snapshot of the updated market value of total compensation, including outstanding equity compensation awarded in prior years.

how it is calculated. Most commonly, it includes the sum of salary paid, stock award balances, and outstanding options valued at the end of the reporting period. Common differences include the time period reported (one year versus three years), the inclusion or exclusion of out of the money options, and the inclusion or exclusion of vested stock and exercised options. The market-value of outstanding equity compensation is included to capture the driving force of this alternative compensation measure. It is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares.

Firms that report “market-value” compensation also do so in different ways. However, there are two most common methods. First, many firms report graphical presentations that link coarse levels of realizable pay with shareholder returns as illustrated in Marriott’s “CEO Realizable Pay and Company Performance” graph in its 2013 proxy statement included in Figure 4 in the appendix. Others provide detailed breakdowns of the components of “market-value” realizable pay as shown in Hospira’s “Actual and Realizable Compensation in 2012” table in Figure 5 and Alcoa’s “2012 CEO Realizable Pay Compared to Grant Date Value” table in their 2013 proxy statements included in Figure 6.

Finally, those that report peer rankings of market-value pay also generally do so in one of two ways. As illustrated in Figure 7 by Stanley Black and Decker’s 2013 proxy statement, some firms simply state the percentile rankings of realizable pay and firm performance relative to peers. Others, more commonly, produce a graphical representation of the relation between realizable pay and stock performance with peer comparisons as shown in Sherwin Williams’ “Pay for Performance Alignment – CEO Realizable Pay and TSR” graph in its 2014 proxy statement in Figure 8 and RadioShack’s “Top-5 Pay-for-Performance Analysis – Realizable Pay to Composite Performance” graph in its 2012 proxy statement in Figure 9. With its comparison across peer firms, this measure may be more informative than other measures for comparability reasons. However, given the prior evidence of self-interest directed peer selection to justify high levels of pay, this measure could be used opportunistically as well. Regardless of the format used, the amount of realizable compensation is not disclosed for this group but the relation between pay and performance is evident.

In addition to firm proxy statements, firm characteristics are collected from Compustat, stock data from CRSP, institutional ownership data from Thompson 13F filings, compensation data from Execucomp, CEO characteristics from Risk Metrics and proxy statements, and voting data from Voting Analytics and 8-Ks. CEO ability is collected from the index maintained by Demerjian et al. (2012).²⁷ Excess CEO

²⁷ To calculate this measure, Demerjian et al. first estimate total firm efficiency within industries using data envelopment analysis, where efficient firms are those that generate more revenues from a given set of inputs including Cost of Goods Sold, Selling and Administrative Expenses, Net PP&E, Net Operating Leases, Net Research and Development, Purchased Goodwill, and Other Intangible Assets. Then, this efficiency measure is regressed on key firm-specific characteristics expected to aid or hinder

compensation is calculated as the difference between expected and actual compensation using the methodology of Core et al. (2008).²⁸ The analysis is restricted to the 2012 proxy season and beyond in order to consider the impact of prior Say on Pay voting results on a firm's decision to disclose alternative measures.

Table 17 reflects descriptive statistics and comparisons for the three groups of alternative pay disclosers. The largest sample is that of pocketed pay disclosers. This group makes up approximately 7% of S&P 500 observations over the three year period and represents the largest S&P 500 firms with average sales of nearly \$33 billion. However, these firms are also associated with significantly lower Q (1.57 compared with 2.00 for non-reporting S&P 500 firms), institutional ownership (75.2% compared with 80.0%), CEO ownership (0.3% compared with 1.2%), and CEO tenure (6.3 years compared with 7.6 years). On the other hand, market-value pay disclosers and peer comparison disclosers are smaller firms than the average S&P 500 member with average market caps of \$20 billion and \$17 billion respectively. These firms are also associated with lower Q on average, compared with non-reporting S&P 500 firms. Those firms that report peer comparisons are also associated with a higher E-Index than peer firms and lower CEO ownership indicative of weaker corporate governance. Finally, all three groups of alternative pay disclosers have significantly higher book-to-market ratios than control firms. Between groups, those firms that report pocketed pay are significantly larger with significantly less institutional ownership than other alternative pay reporters while those firms that report market-value pay are larger and are characterized by greater CEO ownership and tenure than firms that utilize peer comparisons. These descriptive statistics point to differences among the three groups as evidenced by variation observed in performance, institutional ownership, and size.

Determinants of Disclosing Alternative Pay Measures

To test the hypotheses, the study first considers the determinants of being in any of the three samples, which include disclosing “pocketed” pay, disclosing “market-value” pay, or disclosing “peer comparisons” of market-value pay. Firm characteristics, including performance, measured by ROA and annual stock returns, size, measured by the

management's effort including firm size, market share, positive free cash flow, and firm age, and complex multi-segment and international operations. The residual of this regression is used to enable total efficiency to be partitioned between the firm and the manager to estimate manager ability, or MA Score as termed by Demerjian et al. This score is published by the authors on an annual basis. However, it has a limited sample size due to its dependence on a variety of inputs.

²⁸ Expected CEO compensation is a fitted value using the resulting coefficients from a cross-sectional regression of CEO total compensation on CEO tenure, prior year sales, prior year book-to-market ratio, current and prior years' stock returns, current and prior years' ROA, an indicator for S&P 500 inclusion, and year and two digit SIC industry fixed effects for the ExecuComp universe over the sample period.

natural log of sales, and institutional as well as CEO ownership are controlled for. Compensation characteristics including the natural log of total SEC Summary Compensation Table (SCT) pay, the percentage change in total SCT pay from the prior year, the level and change in excess pay, compensation composition percentages, the natural log of calculated pocketed pay, and the natural log of calculated market value of outstanding equity compensation are also examined.²⁹ Finally, the impact of ISS issuing a recommendation against the firm as well as Say on Pay approval in the prior year are considered.

Univariate Results

Univariate results are presented in Table 18. Firms that report alternative pay measures are associated with significantly lower performance as measured by ROA, in comparison with the control group. Firms that report “pocketed” pay have an average return on assets of 4% while firms that report “market-value” pay or “peer comparisons” have average returns on assets of 5%, compared with an average return on assets of 7% for the control group. Firms that report “pocketed” pay or “market-value” pay are also associated with significantly lower annual stock returns on average, compared with non-reporting S&P 500 firms. Firms that report “pocketed” (“market-value”) measures have average annual returns of 12% (10%) compared with average returns of 21% for the control group. While those that report “pocketed” or “market-value” pay have significantly lower stock returns than the control group, those that report peer comparisons do not, suggesting that firms choose to include peer comparisons when their performance is not substantially different from peers.

In addition, firms that report alternative pay measures are firms with significantly lower calculated pocketed pay as well as market-value of outstanding equity compensation. While firms that report “pocketed” pay have average combined pocketed and outstanding equity compensation of \$39.7 million, those who report “market-value” pay have \$48.7 million on average, and those who report “peer comparisons” have \$44.1 million on average, the control sample has \$72.2 million in combined pocketed and outstanding equity compensation on average. However, “pocketed” pay reporting firms have significantly greater abnormal realized pay (-\$3.8 million), the difference between pocketed pay and SCT pay, than their “market-pay” (-\$6.8 million) and “peer comparison” (-\$6.0 million) counterparts. This may indicate that “pocketed” pay reporters are disclosing this measure opportunistically since firms that disclose this

²⁹ Pocketed compensation is calculated as the sum of Salary, Bonus, Non-Equity Incentive Plan Compensation, and All Other Compensation from the Summary Compensation Table as well as the Value of Stock Awards Vested and the Value of Option Awards Exercised from the Option Exercised and Stock Vested Table. The market value of equity compensation is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Calculated measures of market value of equity pay and pocketed compensation are used to overcome differences in how firms calculate their measures.

measure are those with the lowest pocketed pay and market-value outstanding equity pay (which leads to future pocketed pay) combined with the largest levels and growth of SCT pay. These are the firms that benefit most from this disclosure.

On the other hand, “peer comparison” reporters are not associated with significantly lower stock returns, yet they have significantly lower average SCT pay, \$11.1 million compared with \$13.1 million for “pocketed” reporters and \$12.7 million for “market-value” reporters, and significantly lower excess compensation than “pocketed” reporters and control firms. Similarly, although not statistically significant, “peer comparison” reporters are also characterized by lower increases in SCT pay than other alternative pay reporters and control firms. Finally, these firms are also characterized by significantly lower portions of cash compensation compared with “market-value” reporters and control firms as well as significantly lower portions of bonus compensation compared with other alternative pay reporters and control firms. Having lower levels and changes of SCT pay and excess compensation is not characteristic of opportunistic disclosure and may point towards informative incentives for the “peer comparison” sample.

However, all three groups are associated with an increased proportion of receiving a recommendation against Say on Pay from ISS and receiving less approval in the prior Say on Pay vote. For example, those that report “pocketed” pay have average prior Say on Pay approval of 84.7%, those that report “market-value” pay have 82.8% average prior approval, and those that report “peer comparisons” have average prior support of 85.3%, while control S&P 500 firms have average prior support of 89.9%. Similarly, 15.2% of “pocketed” reporters received a recommendation against Say on Pay from ISS in the prior vote, 15.4% of “market-value” pay reporters did, and 17.9 % of “peer comparison” reporters also did, while only 7.8% of control S&P 500 firms received a recommendation against Say on Pay from ISS in their prior vote. This suggests that these firms are choosing to disclose alternative pay measures to combat prior poor Say on Pay voter support as well as external criticisms of pay practices.

Multivariate Results

Multinomial Logistic Regressions are utilized to evaluate the determinants of choosing to disclose alternative pay measures in annual proxy statements using the S&P 500 non-disclosing control sample as the base outcome. Multinomial logistic regressions are similar to logistic models except it allows the dependent variable to be categorical. Using the S&P 500 control sample as the base outcome causes this to be used as the baseline comparison group. Coefficients are interpreted as the change in the relative log odds of being in the sample of interest versus not being in any of the samples. Accordingly, eq. (10) is utilized where the probability of disclosing alternative pay measures is regressed on firm sales, ROA, annual returns, institutional and CEO ownership, the level and change of SEC mandated Summary Compensation Table (SCT) pay, the level and change of excess compensation, calculated pocketed pay, the market value of outstanding equity compensation, the percentages of compensation comprised of cash, bonus, stock, and options, and the changes in stock grants, options

grants, and in the market value of outstanding equity pay. Finally, a prior Say on Pay Outcome is controlled for in each of the three specifications in Table 19. First, the impact of receiving a recommendation against Say on Pay from ISS in the prior vote is examined. Second, the level of Say on Pay support in the prior vote is considered and last, the impact of receiving less than 70% approval in the prior Say on Pay vote is controlled for.

(10)

Probability(Type of Discloser)

$$\begin{aligned}
 &= \beta_0 + \beta_1 * \ln(\text{Sales}) + \beta_2 * \text{ROA} + \beta_3 * \ln(\text{Annual Return}) + \beta_4 \\
 &* \text{Institutional Ownership} + \beta_5 * \text{CEO Ownership} + \beta_6 * \ln(\text{SCT Pay}) + \beta_7 \\
 &* \text{SCT Pay } \% \Delta + \beta_8 * \text{Excess Pay} + \beta_9 * \text{Excess Pay } \% \Delta + \beta_{10} \\
 &* \ln(\text{Pocketed Pay}) + \beta_{11} * \ln(\text{MV Equity Pay}) + \beta_{12} * \text{Bonus Ratio} + \beta_{13} \\
 &* \text{Stock Ratio} + \beta_{14} * \text{Option Ratio} + \beta_{15} * \text{Cash Ratio} + \beta_{16} \\
 &* \Delta \text{ Option Grants} + \beta_{17} * \Delta \text{ Stock Grants} + \beta_{18} * \Delta \text{ MV Equity Pay} + \beta_{19} \\
 &* \text{Prior Say on Pay Outcome} + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

This model estimates the determinants of a firm choosing to disclose “pocketed” pay, “market-value” pay, or “peer comparisons”, separately for each sample, comparing each to the base S&P 500 control group. If firms are disclosing opportunistically, one would expect that poor performance combined with greater levels of SCT compensation and lower levels of reported pay measures will increase the likelihood of reporting alternative compensation. However, if firms are reporting informatively, one would not expect these factors to drive these firms’ disclosure behavior. Results in Table 19 clarify much of what was observed in a univariate setting. First, results reveal that the likelihood of reporting “pocketed” pay is positively and significantly related to Summary Compensation Table pay levels and percentage changes of SCT pay and options granted. It is negatively and significantly related to levels of pocketed pay and the market value of outstanding equity pay (which leads to future pocketed pay). In addition, the likelihoods of reporting both “pocketed” pay and “peer comparisons” are negatively related to performance, as measured by ROA. “Pocketed” reporters are characterized by poor performance and higher SCT pay but lower pocketed pay indicating these firms are opportunistically disclosing this measure to mask poor performance combined with high compensation. On the other hand, while the likelihood of reporting “market-value” pay is positively and significantly related to Summary Compensation Table pay and negatively and significantly related to the market value of outstanding equity pay, it is also negatively related to excess compensation and unrelated to performance measures, inconsistent with opportunistic disclosure. Similarly, “peer comparison” reporting firms are not associated with lower stock returns, higher SCT pay, or lower alternative pay measures, also inconsistent with opportunistic disclosure.

Finally, the differential impacts of a past recommendation against Say on Pay from ISS and past Say on Pay support are examined. If firms are disclosing alternative pay measures in response to pressure from shareholders or advisory services, one would expect both ISS recommendations against Say on Pay and poor past Say on Pay support to increase the likelihood of reporting alternative compensation measures. The

amount of approval in the prior year's vote is negatively related to reporting all measures while receiving a recommendation against Say on Pay from ISS in the prior year also increases the likelihood of reporting all alternative measures. However, reaching the 70% approval threshold is an important determinant for only those reporting "market-value" pay or "peer comparisons". The higher the last year's approval, the less likely a firm is to report alternative pay measures. In addition, receiving less than 70% approval in the prior year increases the likelihood that a firm will choose to disclose "market-value" pay or "peer comparisons". These results are consistent with these firms receiving prior scrutiny of their pay practices and trying to combat that pressure with additional disclosure.

The Impact on Say on Pay Associated With Disclosure of Alternative Pay Measures

Since past Say on Pay results are important determinants for all alternative pay disclosers, the study also considers the impact of disclosing alternative pay measures on future Say on Pay support and ISS recommendations against Say on Pay. If firms are combating prior pressure regarding their pay practices, examining future Say on Pay support will indicate if these firms were effective in their disclosure. In addition, one would expect informative disclosers to impact Say on Pay results more significantly than opportunistic disclosers if shareholders and advisory services can successfully distinguish between the two types of disclosure.

Univariate Results

In addition to the apparent differences in incentives to disclose between groups, univariate results presented in Table 20 indicate that there are also significant differences in Say on Pay outcomes between groups of alternative pay disclosers. While "pocketed" pay and "market-value" pay disclosers continue to experience Say on Pay support significantly below peer firms, those that disclose "peer comparisons" no longer receive significantly different Say on Pay support from peer firms after significantly larger growth in support from the prior vote. This leads to significantly less firms who report "peer comparisons" receiving less than majority support in Say on Pay, compared with S&P non-disclosing firms. These results are consistent with "peer comparisons" having a greater impact on Say on Pay or being associated with other characteristics that positively affect Say on Pay approval, consistent with informative disclosure.

Multivariate Results

The impact of reporting alternative compensation measures on Say on Pay support and ISS recommendations is also examined in a multivariate setting. Multiple Say on Pay

outcomes are regressed on indicator variables for firms' alternative pay disclosures and the interaction of disclosures with past Say on Pay outcomes while controlling for firm, compensation, and past Say on Pay characteristics using eq. (11). For each Say on Pay outcome, the impact of being in any of the three samples is first estimated jointly followed by estimates of the impacts of each sample separately. Interactions between the type of discloser and an indicator equal to one when the firm received less than 70% approval in the prior Say on Pay vote are included to capture whether the impact of disclosing alternative measures on current Say on Pay support is different for firms with prior poor Say on Pay support. Current recommendations against Say on Pay from ISS are also controlled for since research has shown this is a significant determinant of Say on Pay support (Thomas et al. 2011).

(11)

Say on Pay Outcome

$$\begin{aligned}
 &= \beta_0 + \beta_1 * \text{Say on Pay Outcome}_{t-1} + \beta_2 * \text{Pocketed Pay Disclosure} + \beta_3 \\
 &* \text{Pocketed Pay Disclosure} * \text{Say on Pay} < 70\%_{t-1} + \beta_4 \\
 &* \text{MarketValue Pay Disclosure} + \beta_5 * \text{MarketValue Pay Disclosure} \\
 &* \text{Say on Pay} < 70\%_{t-1} + \beta_6 * \text{Peer Comparison Disclosure} + \beta_7 \\
 &* \text{Peer Comparison Disclosure} * \text{Say on Pay} < 70\%_{t-1} + \beta_8 \\
 &* \text{ISS Against Say on Pay} + \beta_9 * \text{Ln(Sales)} + \beta_{10} * \text{ROA} + \beta_{11} \\
 &* \text{Ln(Annual Return)} + \beta_{12} * \text{CEO Ownership} + \beta_{13} * \text{Ln(SCT Pay)} + \beta_{14} \\
 &* \text{Ln(Excess Pay)} + \beta_{15} * \text{Excess Pay \% } \Delta + \beta_{16} * \text{Ln(Pocketed Pay)} + \beta_{17} \\
 &* \text{Ln(MV Equity Pay)} + \beta_{18} * \text{Cash Ratio} + \beta_{19} * \text{Equity Ratio} + \beta_{20} \\
 &* \text{Vested Ratio} + \text{Year \& Industry FEs} + \varepsilon
 \end{aligned}$$

In Table 21, eq. (11) is modeled in the first three columns using an ordinary least squares regression where the Say on Pay outcome is the level of support. Although there is no significant impact of reporting alternative pay measures on average, as shown in the first column, when interacted with prior poor Say on Pay support, the different impact is evident as seen in columns two and three. When examining the samples jointly, there is a significant and negative impact of reporting alternative pay measures on Say on Pay support on average. However, when looking at the samples individually, there is a significant, positive impact of disclosing both pocketed pay and peer comparison information on Say on Pay approval when combatting prior Say on Pay support, even while controlling for firm characteristics, compensation characteristics, prior Say on Pay support, and the impact of a recommendation against Say on Pay from ISS. This suggests that there is only a positive impact of reporting alternative pay measures on Say on Pay support when past support has been weak. In the fourth column, the change in Say on Pay support is considered and in the fifth column, the likelihood of an increase in Say on Pay support is examined. Both of these specifications reflect the negative impact associated with reporting "pocketed" pay on average.

The Say on Pay outcome modeled in Table 22 is the likelihood of reaching the 70% approval threshold using a logistic regression. Despite that disclosing "pocketed" pay or "peer comparison" information may increase the level of support for Say on Pay

in the current year; it is not enough to increase the likelihood of getting past the 70% approval threshold on average. In fact, reporting “pocketed” pay is actually associated with a decrease in the likelihood of reaching the 70% threshold. However, when interacted with prior poor Say on Pay support, as evidenced by receiving less than 70% approval in the prior year, reporting alternative pay measures increases the likelihood of receiving more than 70% approval in the current year. When the sample is broken down into pocketed pay disclosers, market value pay disclosers, and peer comparison disclosers, it is evident that pocketed pay disclosers are driving this result. This is consistent with a greater amount of firms that are concerned with not reaching the 70% threshold utilizing pocketed pay as an alternative pay measure; for those combating prior poor Say on Pay results, it is effective on average.

Finally, the likelihood of receiving an ISS recommendation against Say on Pay is modeled using a logistic regression in Table 23. There is no evidence of a significant relation between reporting alternative pay measures and the likelihood of receiving a recommendation against Say on Pay from ISS. These results indicate that although providing some supplemental compensation information may have a positive effect on the level of Say on Pay approval, these measures do not seem to positively influence ISS and the recommendations it issues.

Supplemental Analyses

To address concerns of endogeneity and correlation in error terms given the link between prior Say on Pay results, reporting alternative pay measures, and future Say on Pay results, analysis is repeated evaluating the impact of disclosing alternative pay measures on Say on Pay outcomes using predicted likelihoods of reporting. First, predicted values for the likelihoods of reporting “pocketed” pay, “market-value” pay, and “peer comparisons” are predicted using eq. (10) and the second model from Table 19. Predicted likelihoods are then used to estimate interactions and the impact on Say on Pay support using eq. (11) and the third model from Table 21. As shown in Table 24, there is a significant and positive relation between the likelihood of reporting “pocketed” pay on the level of Say on Pay support but only when combatting prior poor Say on Pay support. This provides further evidence that the impact of additional disclosure is only significant when combatting prior poor Say on Pay support.

This process is repeated using Two Stage Least Squares (2SLS) methodology for the individual impacts of reporting “pocketed” pay, “market-value” pay, and “peer comparisons” on Say on Pay support.³⁰ In the first stage for each method of alternative pay disclosure, the likelihood of reporting is predicted using the variables in eq. (10). In

³⁰ Interactions with prior poor Say on Pay are not utilized due to restrictions within the IV regression framework.

the second stage, the effect on Say on Pay support is estimated using the predicted likelihood of reporting alternative pay measures individually. Each specification in Table 25 corresponds to a method of alternative pay disclosure in which the sample is restricted to the specific pay disclosers and non-disclosing control firms. Although there is no evidence of a statistically significant relation between reporting “pocketed” or “market-value” pay on Say on Pay support, a continued positive and statistically significant relation between reporting “peer comparisons” and Say on Pay support is observed, further illustrating the value of reporting comparative pay.

Propensity score matching analysis is also utilized to address the confounding effects of covariates that may predict both firms’ voluntary disclosure of alternative compensation measures and their Say on Pay support. Table 26 tabulates the resulting coefficients from estimations of propensity scores for each discloser sample based on matching on industry, year, performance, compensation characteristics, and past Say on Pay support. Consistent with prior results, Table 26 reveals that ROA, calculated pocketed pay, market-value of outstanding equity compensation, and prior Say on Pay support are negatively and significantly related to the likelihood of reporting “pocketed” pay while the level of SEC mandated SCT pay is positively and significantly related. The likelihood of reporting “market-value” pay is positively and significantly related to the level of SCT pay and negatively and significantly related to market-value of outstanding equity compensation, excess compensation, and prior Say on Pay support. Finally, the likelihood of reporting “peer comparisons” is negatively and significantly related to ROA, pocketed compensation, the proportion of cash compensation, and prior Say on Pay support.

Using propensity scores developed from the regressions in Table 26, propensity score matched analysis is utilized to estimate the average treatment effect of reporting alternative pay measures on Say on Pay support while matching to control firms based on industry, performance, compensation characteristics, and past Say on Pay support. Results are presented in Table 27. When using kernel matching, in which all observations are used but each control observation is weighted based on its propensity score’s proximity to the treatment observation’s propensity score, a statistically significant, negative relation is observed between reporting “pocketed” pay or “market-value” pay and Say on Pay support. This relation is also observed for the “pocketed” pay sample when utilizing stratification matching, in which treatment observations are only matched to controls with propensity scores within the same block, where control and treatment observations have the same mean propensity scores in each block. Despite evidence of the negative and significant impact of reporting “pocketed” or “market-value” pay on Say on Pay support when matching on performance, compensation, and past Say on Pay characteristics, there is no evidence of a significant negative relation between reporting “peer comparisons” and Say on Pay support. Further, when the sample is constrained to those with prior low Say on Pay approval, the negative relation does not hold suggesting that although there is evidence of a negative relation on average, reporting alternative pay measures can have a positive impact when combatting past poor Say on Pay support.

Finally, given that results reveal differences in the motivations and characteristics of firms who utilize these alternative methods and some evidence of both opportunistic and informative disclosure aimed at influencing the Say on Pay vote, one may expect these firms to react differently to Say on Pay mandates. In their 2009 study, Cai and Walkling find that the market reaction to the passing of the Say-on-Pay Bill in the House of Representatives was significantly positive for firms with high abnormal CEO compensation, low pay-for-performance sensitivity, and for those responsive to shareholder pressure. Similarly, Ferri and Maber (2013) find that Say on Pay regulation in the UK was met with positive abnormal returns at firms with weak penalties for poor performance. Based on these results, one would expect opportunistic discloser firms to have significant positive abnormal returns in response to the passing of Say on Pay since these firms likely benefit from the additional oversight. If firms are disclosing informatively, one would not expect significant positive abnormal returns since these firms likely do not benefit from the increased oversight since they choose to disclose informatively without mandate. Following Cai and Walkling, market model, value weighted CARs are estimated for each sample for the three day window around April 20, 2007, the date the House of Representatives passed the Say on Pay bill. These results are shown in Table 28. Congruous with previous results, only the “pocketed” pay sample experienced positive and significant cumulative abnormal returns in the three day window around the passing of Say on Pay, consistent with opportunistic disclosure, which may indicate that these are the firms that the market believes benefits most from this legislation.

Conclusion

Results suggest that firms that disclose alternative pay measures do so for different reasons. These measures attract different types of firms and are not created equal. Although all three sets of disclosers are associated with prior poor Say on Pay support, firms that report “pocketed” pay are also characterized by poor performance as well as growing and large SCT pay but lower pocketed pay, compared with non-disclosers. This indicates these firms are opportunistically disclosing this measure to shroud poor performance combined with high compensation when the optics of disclosure are beneficial. Although firms that report market-value pay are associated with lower market value of outstanding equity pay and higher SCT pay compared with non-disclosers, they are also associated with lower excess compensation inconsistent with opportunistic disclosure. Similarly “peer comparison” reporting firms are related to factors associated with informative reporting; they are characterized by significantly less excess compensation than peer S&P 500 firms and are not influenced by performance or the optics of compensation measures.

In addition to the apparent differences in incentives to disclose between groups, there are also significant differences in Say on Pay outcomes between groups of alternative pay disclosers. While “pocketed” pay and “market-value” pay disclosers

continue to experience Say on Pay support significantly below peer firms, those that disclose “peer comparisons” no longer receive significantly different Say on Pay support after significantly larger growth in support from the prior vote. These results are consistent with “peer comparisons” having a greater impact on Say on Pay. Although there is some evidence of a significant, positive impact of disclosing both “pocketed” pay and “peer comparison” information on Say on Pay approval in a multivariate setting, it is not enough to increase the likelihood of getting past the 70% approval threshold on average. However, when interacted with prior poor Say on Pay support, as evidenced by receiving less than 70% approval in the prior year, reporting “pocketed” pay increases the likelihood of receiving more than 70% approval in the current year. This is consistent with a greater amount of firms that are concerned with not reaching the 70% threshold utilizing “pocketed” pay as an alternative compensation measure; for those combating prior poor Say on Pay results, it is effective on average.

This study provides a first look at the propagation of alternative pay measures. Further research into the measures themselves and their relation to performance will produce much needed insight for future legislation. Given the lack of comparability and transparency in these measures across firms, this is challenging at this time. Although there may be benefits to an alternative measure for pay, without mandated methods established, it appears that not all of these measures are being used to better inform shareholders. Perhaps this possibility of opportunistic disclosure is an unintended consequence of mandated Say on Pay votes. In addition, this highlights the importance of standardized Pay for Performance disclosure across firms. Differences in how pay is measured has significant implications for the comparability and usefulness of Pay for Performance disclosure.

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Appendix

Table 17: Descriptive Statistics for Alternative Pay Reporters – S&P 500 Sample, 2011-2013

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Market Cap (in millions), Assets (in millions), Sales (in millions), Tobin’s Q, and BTM are collected from Compustat and CRSP. Tenure, age, and CEO ownership are collected from ExecuComp. E-Index is collected from RiskMetrics. Institutional ownership is calculated using Thompson 13-f data. Differences between samples and control are identified by *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

	Pocketed Pay (N=105)		Potential Pay (N=91)		Peer Comparison (N=67)		S&P 500 Control (N=1237)	
	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>
Panel A: Descriptive Statistics for Firm and CEO Characteristics								
Sales	32654.52*	6026.30	19930.89	11390.95	14859.42**	7745.00	19938.60	8252.34
Total Assets	61998.52	15328.14	53862.85	25869.00	19885.33***	16073.00	60102.17	14091.00
Market Cap	38070.67	11354.48	20332.74***	13538.80	17238.73***	11176.66	28894.94	13880.70
Tobin's Q	1.57***	1.34	1.62***	1.29	1.66***	1.38	2.00	1.60
BTM	0.73***	0.73	0.75***	0.79	0.69**	0.73	0.62	0.61
E-Index	1.96	2.00	2.01	2.00	2.32**	3.00	1.92	2.00
Instit Ownership	75.24%***	76.40%	79.57%	80.37%	81.76%	81.92%	80.04%	81.93%
CEO Ownership	0.26%***	0.16%	0.89%	0.28%	0.32%***	0.23%	1.22%	0.23%
CEO Tenure	6.31**	5.78	7.43	5.29	5.28***	4.50	7.56	6.00
CEO Age	56.50	56.00	57.33	57.00	56.82	57.00	56.81	57.00
Panel B: Industry Breakdown								
Cnsumr NonDurables	3.81%**		7.69%		2.99%**		7.92%	
Cnsumr Durables	0.00%***		1.10%*		0.00%***		2.02%	
Manufacturing	18.10%***		13.19%*		28.36%***		7.03%	
Oil, Gas, and Coal	8.57%		12.09%		16.42%**		5.98%	
Chemicals	0.00%***		3.30%		4.48%		3.80%	
Business Equipment	14.29%		10.99%		8.96%*		15.28%	
Telephone & TV	5.71%		1.10%*		4.48%		3.31%	
Utilities	9.52%		9.89%		4.48%		6.71%	
Wholesale & Retail	2.86%***		6.59%		1.49%***		10.99%	
Healthcare & Drugs	6.67%		5.49%		10.45%		7.76%	
Finance	12.38%*		13.19%		8.96%**		18.27%	
Other	16.19%*		14.29%		8.96%		8.97%	

Table 18: Univariate Results for Determinants of Reporting Alternative Pay Measures

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm performance characteristics, including ROA and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics.

	Pocketed Pay (N=105)		Potential Pay (N=91)		Peer Comparison (N=67)		S&P 500 Control (N=1237)	
	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>
Panel A: Univariate Results for Performance Characteristics								
ROA	3.93%***	3.58%	5.07%***	4.14%	4.73%***	4.26%	6.96%	6.07%
Annual Return	12.44%***	9.81%	10.49%***	7.26%	17.86%	15.10%	20.76%	18.00%
Panel B: Univariate Results for CEO Compensation Characteristics								
SEC SCT Pay	13078.74	10965.79	12746.34	11486.87	11117.36	9512.32	12014.74	10136.25
Pocketed Pay	16828.82***	12442.01	19501.02**	14779.36	17101.06***	14949.80	27801.03	15864.68
SCT-Pocketed Diff	-3750.08***	-1696.30	-6754.68**	-2618.67	-5983.71***	-3918.51	-15806.90	-4603.15
% Δ in SCT Pay	443.86%	6.98%	14.55%	3.48%	12.79%	6.81%	47.05%	6.53%
MV Outstd Equity	22861.12***	13294.40	29245.50***	18484.60	27017.44***	20903.04	44404.15	22657.90
% Δ MV Equity Pay	212.18%	11.37%	70.52%	4.75%	341.24%	26.19%	71.17%	15.58%
Deferred Pay	269.81***	72.60	764.99	108.23	961.86	257.63	681.15	82.73
Excess Comp	2316.58	1134.54	1624.49	1293.30	774.54*	324.55	1789.3	465.50
Δ in Excess Comp	1281.47	191.92	-83.37	69.72	-816.43	-429.34	411.53	-123.60
% Δ Excess Comp	-107.09%	-70.47%	-83.25%	-50.18%	7.96%	-38.11%	12.20%	-49.02%
% Cash	14.79%*	12.86%	16.18%	13.11%	13.41%***	11.85%	16.84%	12.58%
% Equity	59.98%	64.66%	61.09%	64.52%	60.52%	61.74%	57.73%	61.86%
% Pocketed	48.17%	29.63%	78.23%	40.64%	66.72%	45.86%	97244644%	60.82%
% Salary	13.07%	12.02%	13.63%	11.69%	12.98%	11.84%	14.08%	11.58%
% Bonus	1.71%*	0.00%	2.56%	0.00%	0.43%***	0.00%	2.76%	0.00%
% Stocks	47.33%***	48.86%	39.43%	35.40%	36.35%	36.50%	38.81%	39.18%
% Options	12.65%***	6.13%	21.65%	22.54%	24.16%**	19.50%	18.92%	15.26%
% Δ Stocks	35.25%	8.58%	103.86%	3.00%	33.01%	9.97%	70.58%	5.01%
% Δ Options	108.29%	-8.32%	-13.66%**	-2.39%	3.65%	2.68%	4.41%	0.00%
% Shares Vested	34.05%	24.44%	29.89%	19.68%	36.71%	25.44%	97244071%	31.63%
% Options Exrcsd	14.12%	0.00%	48.34%	0.00%	30.01%	0.00%	572.97%	3.83%

Table 18. Continued.

	Pocketed Pay (N=105)		Potential Pay (N=91)		Peer Comparison (N=67)		S&P 500 Control (N=1237)	
	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>	<u>Mean</u>	<u>Median</u>
Panel C: Univariate Results for Say on Pay (SoP) Voting Characteristics								
Hold Say on Pay _t	99.05%***	1.00	98.90%***	1.00	98.51%**	1.00	94.58%	1.00
Annual SoP Freq	95.24%	1.00	93.41%	1.00	95.52%	1.00	92.97%	1.00
SoP Support _(t-1)	84.74%***	91.90%	82.79%***	89.40%	85.34%**	93.00%	89.94%	94.30%
ISS Against SoP _(t-1)	15.24%**	0.00	15.38%*	0.00	17.91%**	0.00	7.76%	0.00
SoP <70% _(t-1)	19.05%	0.00	24.18%**	0.00	20.90%	0.00	13.74%	0.00
SoP < Majority _(t-1)	3.81%**	0.00	8.79%	0.00	5.97%	0.00	7.92%	0.00
Differences between samples and control are identified by *** p<0.01, ** p<0.05, * p<0.1								

Table 19: Multivariate Results for Determinants of Reporting Alternative Pay Measures

Analysis is performed using multinomial logistic regressions where each sample of disclosers is compared to the base S&P 500 control sample. The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. Total Pay % coefficients have been multiplied by 10^3 and coefficients for Excess Pay have been multiplied by 10^5 .

VARIABLES	Multinomial #1			Multinomial #2			Multinomial #3		
	(1) Pocketed	(2) Mkt Value	(3) Peers	(4) Pocketed	(5) Mkt Value	(6) Peers	(7) Pocketed	(8) Mkt Value	(9) Peers
Ln(Sales)	-0.379** (-2.298)	0.027 (0.180)	-0.031 (-0.200)	-0.345** (-2.090)	0.101 (0.698)	0.003 (0.021)	-0.365** (-2.194)	0.052 (0.363)	-0.025 (-0.170)
ROA	-8.513*** (-3.557)	-2.920 (-0.885)	-8.299*** (-2.608)	-6.857*** (-2.875)	-1.127 (-0.318)	-6.650** (-2.151)	-8.441*** (-3.547)	-2.473 (-0.711)	-8.277*** (-2.609)
Ln(Annual Return)	-0.454 (-0.718)	-1.194* (-1.656)	0.146 (0.231)	-0.338 (-0.517)	-1.162 (-1.419)	0.247 (0.385)	-0.494 (-0.787)	-1.152 (-1.572)	0.086 (0.139)
Instit Ownership	-0.025** (-2.520)	0.010 (0.746)	0.004 (0.383)	-0.025** (-2.481)	0.006 (0.419)	0.006 (0.510)	-0.023** (-2.341)	0.011 (0.862)	0.006 (0.586)
CEO Ownership	-0.641** (-2.552)	0.051 (1.112)	-0.447** (-2.344)	-0.769** (-2.430)	0.054 (1.054)	-0.432* (-1.802)	-0.650*** (-2.601)	0.057 (1.234)	-0.438** (-2.331)
Ln(Total Pay)	2.839*** (4.907)	2.488*** (4.906)	0.384 (0.676)	2.601*** (4.446)	2.235*** (4.595)	0.264 (0.488)	2.850*** (4.917)	2.471*** (4.999)	0.423 (0.744)
Total Pay % Δ*	0.005 (1.558)	-1.471 (-0.756)	-1.652 (-1.255)	0.005* (1.666)	-0.212 (-0.223)	-1.281 (-1.200)	0.005 (1.503)	-1.513 (-0.925)	-1.803 (-1.232)
Excess Pay**	-0.767 (-0.327)	-6.902** (-2.002)	0.705 (0.218)	-0.724 (-0.288)	-8.631*** (-2.598)	0.584 (0.216)	-1.312 (-0.554)	-7.341** (-2.263)	0.270 (0.090)
Excess Pay % Δ	-0.015 (-0.685)	-0.006 (-0.726)	-0.006* (-1.678)	-0.015 (-0.713)	-0.005 (-0.638)	-0.006 (-1.568)	-0.014 (-0.688)	-0.006 (-0.690)	-0.006* (-1.666)
Ln(Pocketed Pay)	-1.415*** (-3.186)	-0.188 (-0.604)	-0.404 (-1.105)	-1.335*** (-2.961)	-0.035 (-0.118)	-0.390 (-1.071)	-1.408*** (-3.162)	-0.133 (-0.406)	-0.375 (-1.010)
Ln(MV Equity Pay)	-0.517*** (-3.020)	-0.545*** (-3.570)	-0.207 (-0.938)	-0.531*** (-3.048)	-0.547*** (-3.553)	-0.236 (-1.168)	-0.523*** (-3.091)	-0.557*** (-3.681)	-0.235 (-1.086)
% Bonus	-6.750*** (-2.633)	-6.753*** (-3.146)	-12.312** (-1.961)	-6.623** (-2.479)	-7.414*** (-3.686)	-11.662* (-1.912)	-6.525** (-2.495)	-7.143*** (-3.287)	-11.693* (-1.944)

Table 19. Continued.

VARIABLES	Multinomial #1			Multinomial #2			Multinomial #3		
	(1) Pocketed	(2) Mkt Value	(3) Peers	(4) Pocketed	(5) Mkt Value	(6) Peers	(7) Pocketed	(8) Mkt Value	(9) Peers
% Stocks	1.022 (1.274)	1.215 (1.475)	-0.227 (-0.284)	1.191 (1.426)	0.834 (1.052)	-0.029 (-0.037)	1.043 (1.314)	1.253 (1.553)	-0.124 (-0.160)
% Options	-1.124 (-1.081)	2.420** (2.548)	1.129 (1.212)	-0.950 (-0.902)	2.487*** (2.696)	1.585* (1.737)	-1.127 (-1.117)	2.413** (2.552)	1.134 (1.258)
% Δ Stock Grants	-0.027 (-0.789)	0.012* (1.885)	0.005 (0.740)	-0.015 (-0.557)	0.035** (2.165)	0.014 (0.945)	-0.028 (-0.834)	0.009 (1.494)	0.002 (0.303)
% Δ Option Grants	0.047*** (2.890)	-0.426 (-1.345)	-0.021 (-0.238)	0.055*** (3.217)	-0.425 (-1.213)	-0.000 (-0.001)	0.049*** (3.024)	-0.381 (-1.174)	-0.004 (-0.113)
% Δ MV Equity Pay	0.011 (0.975)	0.013 (1.092)	0.017 (1.552)	0.010 (1.017)	0.013 (1.094)	0.018* (1.657)	0.011 (1.015)	0.014 (1.081)	0.019 (1.564)
Cash Ratio	3.913** (2.008)	6.401*** (4.167)	1.069 (0.429)	3.921* (1.958)	6.400*** (4.242)	0.944 (0.387)	3.801* (1.921)	6.660*** (4.038)	0.871 (0.348)
ISS Against SoP _{t-1}	0.750** (1.964)	0.720** (2.147)	1.217*** (3.393)						
Say on Pay % _{t-1}				-2.910*** (-2.868)	-4.198*** (-4.615)	-3.247*** (-2.966)			
Say on Pay<70% _{t-1}							0.553 (1.636)	0.981*** (3.369)	0.811** (2.256)
Year & Industry FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-squared	0.1984	0.1984	0.1984	0.2122	0.2122	0.2122	0.1974	0.1974	0.1974
Observations	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279	1,279

Robust z-statistics in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 20: Univariate Results for Effects of Reporting Alternative Pay Measures on Say on Pay Outcomes

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics.

	Pocketed Pay (N=105)		Potential Pay (N=91)		Peer Comparison (N=67)		S&P 500 Control (N=1237)	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Say on Pay Support †	85.59%***	92.10%	85.02%***	90.60%	90.15%	93.85%	90.71%	94.90%
Change in Support †	0.94%	-0.10%	2.19%	0.35%	4.80%**	0.70%	0.76%	0.20%
ISS Against Say on Pay †	7.62%	0.00	10.99%	0.00	8.96%	0.00	5.98%	0.00
Support <70% †	16.19%	0.00	15.38%	0.00	13.43%	0.00	11.72%	0.00
Less than Majority Support †	3.81%	0.00	3.30%*	0.00	1.49%***	0.00	7.11%	0.00

Differences between samples and control are identified by *** p<0.01, ** p<0.05, * p<0.1

Table 21: Multivariate Results for Effects of Reporting Alternative Pay Measures on Say on Pay Support

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. In the first three specifications, the dependent variable is the level of Say on Pay support. In the fourth specification, the dependent variable is the change in the level of Say on Pay support and in the last specification, the dependent variable is an indicator variable equal to one when Say on Pay support increased from the prior year. Change in Excess Pay Coefficients have been multiplied by 10.

	(1)	(2)	(3)	(4)	(5)
Say on Pay Support	Level	Level	Level	Change	Pr(Increase)
All Disclosure Samples		-0.020** (-1.965)			
All * Say on Pay <70% _{t-1}		0.060 (1.566)			
Say on Pay <70% _{t-1}	-0.008 (-0.288)	-0.030 (-0.933)	-0.032 (-1.008)	-0.048 (-0.766)	-2.898*** (-4.994)
Pocketed Pay Disclosure	-0.023 (-1.448)		-0.046*** (-2.820)	-0.063*** (-2.976)	-0.635* (-1.805)
Pocketed * Say on Pay <70% _{t-1}			0.134*** (3.065)	0.143 (1.645)	2.243 (1.610)
Market Value Pay Disclosure	-0.017 (-1.000)		-0.001 (-0.047)	-0.008 (-0.421)	-0.047 (-0.124)
Market Value * Say on Pay <70% _{t-1}			-0.050 (-0.850)	-0.140 (-1.135)	-0.487 (-0.572)
Peer Rankings Disclosure	0.025 (1.474)		0.005 (0.329)	-0.005 (-0.266)	-0.232 (-0.565)
Peer * Say on Pay <70% _{t-1}			0.094* (1.799)	0.156 (1.309)	0.865 (0.879)
Say on Pay % _{t-1}	0.283*** (4.400)	0.280*** (4.294)	0.275*** (4.257)	-1.398*** (-5.407)	-13.941*** (-8.495)
ISS Against Say on Pay _{t-1}	-0.177*** (-8.544)	-0.177*** (-8.616)	-0.177*** (-8.807)	-0.243*** (-8.172)	-1.787*** (-4.691)
Ln(Sales)	0.007 (1.495)	0.007 (1.484)	0.007 (1.497)	0.006 (0.917)	0.110 (1.149)
ROA	0.150** (1.981)	0.146* (1.882)	0.141* (1.844)	0.139 (1.338)	4.923*** (2.583)
Ln(Annual Return)	0.022 (1.382)	0.025 (1.600)	0.022 (1.414)	-0.008 (-0.258)	0.875** (2.166)
CEO Owned	-0.001 (-0.777)	-0.001 (-0.707)	-0.001 (-0.677)	-0.002 (-0.699)	-0.017 (-0.525)
Ln(SCT Total Pay)	-0.041** (-2.118)	-0.041** (-2.122)	-0.040** (-2.101)	-0.064** (-1.994)	-0.875** (-2.186)
Ln(Excess Pay)	-0.007 (-0.457)	-0.006 (-0.409)	-0.005 (-0.327)	-0.020 (-0.890)	0.367 (1.167)
Change in Excess Pay	-0.001* (-1.763)	-0.001* (-1.896)	-0.001 (-1.626)	-0.001 (-0.742)	-0.044 (-1.403)

Table 21. Continued.

	(1)	(2)	(3)	(4)	(5)
Say on Pay Support	Level	Level	Level	Change	Pr(Increase)
Ln(Pocketed Pay)	-0.007 (-0.799)	-0.007 (-0.742)	-0.008 (-0.883)	-0.007 (-0.522)	-0.112 (-0.333)
Ln(MV Outstanding Equity Pay)	0.002 (0.485)	0.001 (0.398)	0.002 (0.478)	0.003 (0.505)	0.068 (0.580)
Cash Compensation %	-0.063 (-1.085)	-0.063 (-1.116)	-0.063 (-1.097)	-0.149 (-1.489)	1.161 (1.079)
Equity Compensation %	0.013 (0.542)	0.012 (0.481)	0.014 (0.585)	0.041 (0.978)	0.142 (0.267)
Vested/Exercised %	-0.001 (-1.046)	-0.001 (-1.042)	-0.001 (-0.982)	-0.001 (-0.782)	-0.088 (-0.889)
Constant	1.021*** (7.547)	1.029*** (7.411)	1.032*** (7.567)	1.868*** (5.353)	19.73*** (6.916)
Year & Industry Fes	Yes	Yes	Yes	Yes	Yes
Observations	1,303	1,303	1,303	1,303	1,303
R-squared	0.429	0.429	0.447	0.519	0.182

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 22: Multivariate Results for Effects of Reporting Alternative Pay Measures on the Likelihood of Reaching the 70% Say on Pay Approval Threshold

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. The dependent variable is an indicator variable equal to one when Say on Pay support is greater than 70%.

	(1)	(2)
Say on Pay Support > 70%		
All Disclosure Samples	-0.435 (-1.277)	
All * Say on Pay <70% t-1	1.364** (2.302)	
Pocketed Pay Disclosure		-0.821* (-1.843)
Pocketed * Say on Pay <70% t-1		3.280*** (2.942)
Market Value Pay Disclosure		0.114 (0.187)
Market Value * Say on Pay <70% t-1		-0.098 (-0.117)
Peer Rankings Disclosure		-0.102 (-0.170)
Peer * Say on Pay <70% t-1		1.166 (0.989)
Say on Pay <70% t-1	-2.336*** (-7.751)	-2.363*** (-7.735)
ISS Against Say on Pay t-1	-2.168*** (-6.914)	-2.245*** (-7.135)
Ln(Sales)	0.398** (2.428)	0.395** (2.428)
ROA	-0.090 (-0.041)	-0.530 (-0.237)
Ln(Annual Return)	0.785 (1.287)	0.792 (1.282)
CEO owned	0.037 (0.834)	0.036 (0.790)
Ln(SCT Total Pay)	-1.328** (-2.123)	-1.294** (-2.068)
Ln(Excess Pay)	-0.162 (-0.463)	-0.196 (-0.564)
Change in Excess Pay	0.001 (0.297)	0.001 (0.340)
Ln(Pocketed)	-0.020 (-0.057)	-0.074 (-0.213)
Ln(MV Outstanding Equity Pay)	0.118 (0.806)	0.142 (0.958)

Table 22. Continued.

	(1)	(2)
Say on Pay Support > 70%		
Cash Compensation %	-1.627 (-1.376)	-1.637 (-1.377)
Equity Compensation %	0.744 (0.877)	0.836 (0.981)
Vested/Exercised %	-0.023 (-1.198)	-0.022 (-1.125)
Constant	10.31*** (3.290)	10.33*** (3.258)
Year & Industry FEs	Yes	Yes
Observations	1,405	1,405
Pseudo R ²	0.2895	0.2989

Robust z-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 23: Multivariate Results for Effects of Reporting Alternative Pay Measures on the Likelihood of Receiving an ISS Recommendation Against Say on Pay

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. The dependent variable is an indicator variable equal to one when ISS issues a recommendation against Say on Pay.

	(1)	(2)
ISS Recommendation Against Say on Pay		
All Disclosure Samples	0.001 (0.003)	
All * ISS Against Say on Pay $t-1$	0.871 (1.303)	
Pocketed Pay Disclosure		-0.121 (-0.171)
Pocketed * ISS Against Say on Pay $t-1$		1.007 (0.902)
Market Value Pay Disclosure		0.103 (0.162)
Market Value * ISS Against Say on Pay $t-1$		0.720 (0.770)
Peer Rankings Disclosure		0.059 (0.078)
Peer * ISS Against Say on Pay $t-1$		0.844 (0.835)
ISS Against Say on Pay $t-1$	0.435 (1.043)	0.436 (1.048)
Ln(Sales)	-0.505*** (-3.241)	-0.505*** (-3.180)
ROA	-3.154 (-1.155)	-3.213 (-1.187)
Ln(Annual Return)	-1.214** (-2.142)	-1.205** (-2.138)
CEO owned	0.044 (1.108)	0.043 (1.115)
Ln(SCT Total Pay)	1.150* (1.750)	1.162* (1.747)
Ln(Excess Pay)	-0.021 (-0.047)	-0.016 (-0.038)
Change in Excess Pay	-0.006 (-1.023)	-0.006 (-1.007)
Ln(Pocketed)	0.286 (0.569)	0.271 (0.558)
Ln(MV Outstanding Equity Pay)	-0.209 (-1.250)	-0.209 (-1.254)
Cash Compensation %	1.148 (0.895)	1.148 (0.894)

Table 23. Continued.

	(1)	(2)
ISS Recommendation Against Say on Pay		
Equity Compensation %	1.092 (1.322)	1.082 (1.316)
Vested/Exercised %	-0.025 (-0.124)	-0.020 (-0.105)
Constant	-10.02** (-2.548)	-9.974** (-2.540)
Year & Industry FEs	Yes	Yes
Observations	1,327	1,327
Pseudo R ²	0.1417	0.1417

Robust z-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 24: Multivariate Results for Effects of Reporting Alternative Pay Measures on Say on Pay Support Using Predicted Likelihoods of Reporting Alternative Pay Measures

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. The dependent variable is the level of Say on Pay support. The likelihood of reporting each alternative pay measure has been predicted using eq. (10) and the second specification (columns 3 through 6) in Table 19. Predicted likelihoods are used for variables and interactions of interest. Change in Excess Pay Coefficients have been multiplied by 10.

	(1)
Say on Pay Support Level	
Pocketed Pay Disclosure	-0.036 (-0.757)
Pocketed * Say on Pay < 70% _{t-1}	0.188* (1.721)
Market-Value Pay Disclosure	-0.055 (-0.690)
Market-Value * SayonPay<70% _{t-1}	0.063 (0.437)
Peer Potential Pay Disclosure	0.064 (0.956)
Peer * Say on Pay < 70% _{t-1}	0.168 (0.962)
Say on Pay < 70% _{t-1}	-0.024 (-0.683)
Say on Pay % _{t-1}	0.336*** (5.122)
ISS Against Say on Pay _{t-1}	-0.182*** (-9.849)
Ln(Sales)	0.012*** (2.860)
ROA	0.141** (2.103)
Ln(Annual Return)	0.025* (1.729)
CEO ownership	-0.002 (-0.961)
Ln(SCT Total Pay)	-0.043** (-2.263)
Ln(Excess Pay)	-0.011 (-0.897)
Change in Excess Pay	-0.001* (-1.883)
Ln(Pocketed Pay)	-0.002 (-0.233)
Ln(MV Outstanding Equity Pay)	0.006 (1.225)

Table 24. Continued.

	(1)
<hr/> Say on Pay Support Level <hr/>	
Cash Compensation %	-0.015 (-0.309)
Equity Compensation %	0.009 (0.441)
Vested/Exercised %	-0.001* (-1.651)
Constant	0.856*** (6.781)
Year & Industry FEs	Yes
Observations	1,207
R-squared	0.419

Robust t-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 25: Multivariate Results for Effects of Reporting Alternative Pay Measures on Say on Pay Support Using Two Stage Least Squares

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. The dependent variable is the level of Say on Pay support. In the first stage, the likelihood of reporting each alternative pay measure has been estimated based on eq. (10) and these estimated likelihoods are used in the second stage for each alternative pay methodology.

VARIABLES	(1)	(2)	(3)
	Say on Pay Support		
"Pocketed"	0.040 (0.706)		
"Market-Value"		0.305 (1.676)	
"Peer Comparisons"			0.256** (2.217)
Say on Pay _(t-1)	0.293*** (11.802)	0.374*** (8.531)	0.312*** (10.822)
ISS Against Say on Pay	-0.185*** (-16.431)	-0.195*** (-13.322)	-0.190*** (-14.832)
Ln(Sales)	0.012*** (3.931)	0.009** (2.111)	0.012*** (3.294)
ROA	0.164*** (2.788)	0.133* (1.918)	0.205*** (3.071)
Ln(Annual Return)	0.026* (1.921)	0.050*** (2.599)	0.018 (1.183)
Ln(SCT Total Pay)	-0.052*** (-4.523)	-0.062*** (-4.279)	-0.046*** (-3.683)
Ln(Excess Pay)	-0.011 (-1.012)	0.004 (0.289)	-0.014 (-1.202)
Change in Excess Pay	0.000 (0.892)	0.000 (0.851)	0.000 (1.126)
Ln(Pocketed Pay)	0.001 (0.097)	-0.003 (-0.355)	0.003 (0.312)
Ln(MV Outstanding Equity Pay)	0.007* (1.829)	0.011** (2.344)	0.007* (1.771)
Equity Compensation %	0.010 (0.562)	0.007 (0.307)	0.006 (0.288)
Vested/Exercised %	-0.002** (-1.976)	-0.002 (-1.481)	-0.002* (-1.868)
Constant	0.921*** 11.394)	0.952*** (9.945)	0.830*** (8.400)
Observations	1,219	1,219	1,219
R-squared	0.392	0.031	0.231

z-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 26: Estimation of Propensity Scores Related to the Likelihood of Disclosing Alternative Pay Measures

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. The dependent variable is the likelihood of reporting each alternative pay measure. Excess Pay Coefficients multiplied by 10^5 .

ESTIMATION OF THE PROPENSITY SCORE

Treatment:	"Pocketed"	"Market-Value"	"Peer Comparison"
ROA	-3.57*** (1.19)	-0.36 (1.12)	-2.59** (1.26)
Ln(Annual Return)	0.07 (0.25)	-0.28 (0.26)	0.21 (0.29)
Ln(SCT Total Pay)	0.95*** (0.21)	0.67*** (0.21)	0.26 (0.22)
Percentage change in SCT Pay	0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Excess Pay	-0.71 (0.00)	-3.16** (0.00)	-1.79 (0.00)
Change in Excess Pay	-0.00 (0.00)	-0.00 (0.01)	-0.00 (0.00)
Ln(Pocketed Pay)	-0.69*** (0.17)	0.04 (0.15)	-0.28* (0.17)
Ln(MV Outstanding Equity Pay)	-0.24*** (0.07)	-0.20*** (0.07)	-0.10 (0.08)
Cash Ratio	-0.84 (0.56)	0.20 (0.51)	-2.24** (0.99)
Change in Option Grants	-0.03 (0.02)	-0.11 (0.13)	0.14 (0.11)
Change in Stock Grants	-0.00 (0.02)	0.01 (0.01)	0.00 (0.02)
Say on Pay _(t-1)	-1.23*** (0.46)	-1.84*** (0.46)	-1.33** (0.51)
Matched by Year & Industry	Yes	Yes	Yes
Observations	1,107	1,086	1,071
Pseudo R-squared	0.139	0.101	0.065

Standard errors reported in parentheses

Table 27: Estimation of Average Treatment Effects of Disclosing Alternative Pay Measures on Say on Pay Support Using Propensity Score Matching Analysis

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Firm characteristics, including Sales, ROA, and Annual Returns, are collected from Compustat and CRSP. Compensation measures (in thousands) are collected from ExecuComp. SEC SCT Pay refers to SEC-Mandated Summary Compensation Table pay as reported by ExecuComp. SCT pay is the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Change in Pension Value and Nonqualified Deferred Compensation Earnings, Stock Awards, Option Awards, and Other Compensation. Pocketed pay is calculated as the sum of Salary, Bonus, Non-equity Incentive Plan Compensation, Other Compensation, Stock Vested, and Options Exercised during the period. MV Equity Pay is calculated as the sum of the current market value (as of the report date) of outstanding stock grants, options, and equity incentive plan shares. Deferred compensation is the sum of executive and firm deferred compensation plan contributions. Expected and excess compensation are computed using the methodology of Core et al. (2008). Say on Pay voting results are collected from ISS Voting Analytics. Treatment observations are matched to controls using propensity scores developed in Table 24. The dependent variable is Say on Pay support. T-statistics are shown in parentheses.

Dependent Variable: Say on Pay Support	Whole Sample		Low Prior SoP	
	Kernel Matching	Stratification Matching	Kernel Matching	Stratification Matching
Pocketed Pay Reporters	-0.04** (-2.09)	-0.03* (-1.81)	0.15 (1.28)	0.09 (1.57)
Market Value Pay Reporters	-0.06*** (-3.19)	-0.01 (-0.85)	-0.01 (-0.06)	0.00 (0.00)
Peer Comparison Reporters	-0.00 (-0.17)	-0.01 (-0.33)	-0.05 (-0.50)	0.03 (0.35)

Table 28: Univariate Analysis of Cumulative Abnormal Stock Returns

The sample is comprised of three groups of interest. The first group is S&P 500 firms that use “pocketed” pay in their Pay for Performance disclosures in their annual proxy reports. The second group is S&P 500 firms that report “market-value” pay while the third group reports “peer comparison” percentile rankings of market-value pay in their Pay for Performance disclosures. Mean Market Model Adjusted CARs based on the Value-Weighted Index are reported for the three day window around April 20, 2007, the date on which Say on Pay was mandated by law.

<u>Event Window</u>	<u>Mean CAR</u>
<u>Panel A: CARs for “Pocketed” Sample</u>	
(-30,-2)	-1.12%
(-1,+1)	0.60%**
(+2,+30)	-1.44%**
<u>Panel B: CARs for “Market-Value” Sample</u>	
(-30,-2)	1.13%
(-1,+1)	0.00%
(+2,+30)	-0.85%*
<u>Panel C: CARs for “Peer Comparison” Sample</u>	
(-30,-2)	0.73%
(-1,+1)	0.06%
(+2,+30)	0.76%

*** p<0.01, ** p<0.05, * p<0.1

The table below summarizes the compensation that Mr. Wilson received in 2011. The table does not show the grant date fair value of equity awards granted in 2011, which is shown in the *Summary Compensation Table*, but instead shows the value of any stock options that were exercised and restricted stock units that vested in 2011. This table is intended to supplement the information in the *Summary Compensation Table*.

Supplemental Table of CEO Compensation Realized in 2011

Compensation Element	Target Compensation	Total Realized	Performance Results that Produced the Compensation
Base salary	\$1,100,000	\$1,100,000	The Committee did not increase Mr. Wilson's base salary in 2011.
Annual Incentive Award	\$2,200,000	\$2,252,800	Strong adjusted underlying operating income and an improvement in book value per share resulted in funding at 102.4% of target. Threshold performance was not achieved for the growth in policies in multi-category households measure as management actions to improve returns in the homeowners business negatively impacted the measure.
Total Cash	\$3,300,000	\$3,352,800	
Stock Options	\$0	\$0	Mr. Wilson did not exercise any stock options in 2011.
Restricted Stock Units	\$1,393,242	\$825,335	Vesting of 22,385 restricted stock units granted in 2007. The amount in the target column is the grant date fair value of that award while the total realized represents the actual amount delivered on the vesting date, including dividends that were paid in years 2007 through 2010.
Total	\$4,693,242	\$4,178,135	

Figure 1. "Pocketed" – Allstate 2012 Proxy Statement

Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Non-Equity	Stock	All Other	Total (\$)	Total Realized
				Incentive Bonus Plan (\$)	Awards (\$)	Compensation (\$)		Compensation (3)
Michael J. Celebrezze	2011	\$ 260,000	\$ -	\$ 147,342	\$ 79,218	\$ -	\$ 486,560	\$ 349,612
Senior Vice President of Finance, Chief Financial Officer and Treasurer	2010	\$ 260,000	\$ 50,000	\$ -	\$ 296,140	\$ -	\$ 606,140	\$ 286,000
	2009	\$ 260,000	\$ 26,000	\$ -	\$ -	\$ -	\$ 286,000	\$ 260,722
David L. Thomas	2011	\$ 305,000	\$ -	\$ 162,600	\$ 79,218	\$ -	\$ 546,818	\$ 394,612
Chief Operating Officer	2010	\$ 300,000	\$ 50,000	\$ -	\$ 296,140	\$ -	\$ 646,140	\$ 327,500
	2009	\$ 275,000	\$ 27,500	\$ -	\$ -	\$ -	\$ 302,500	\$ 397,787
Rhonda S. Sebastian (1)	2011	\$ 190,000	\$ -	\$ 72,200	\$ 46,602	\$ -	\$ 308,802	\$ 240,970
Senior Vice President of Human Resources	2010	\$ 190,000	\$ 30,000	\$ -	\$ 156,780	\$ -	\$ 376,780	\$ 201,084
	2009	\$ 110,833	\$ 11,084	\$ -	\$ -	\$ -	\$ 121,917	\$ 110,833

- (3) The amounts reported in the Total Realized Compensation column differ substantially from the amounts reported in the Total column required under SEC rules and are not a substitute for the total amounts. The Total Realized Compensation represents: (1) Total compensation under applicable SEC rules, minus (2) the aggregate grant date fair value of RSUs awarded in the calendar year, plus (3) the value realized in the calendar year from the vesting shares of prior year RSU awards. Also, the Total Realized Compensation reflects any bonus actually paid in the calendar year, whereas Total compensation under SEC rules reflects any bonus earned in respect of the prior the calendar year.

Figure 2. "Pocketed" – LCA 2012 Proxy Statement

<u>2011 Realized Compensation Table</u>	
Name and Principal Position	Realized Compensation
Jeffrey R. Immelt Chairman of the Board and CEO	\$7,822,378
Keith S. Sherin Vice Chairman and CFO	\$6,760,856
John Krenicki Vice Chairman	\$6,795,069
Michael A. Neal Vice Chairman	\$6,893,639
John G. Rice Vice Chairman	\$6,884,336

Figure 3. “Pocketed” – GE 2012 Proxy Statement

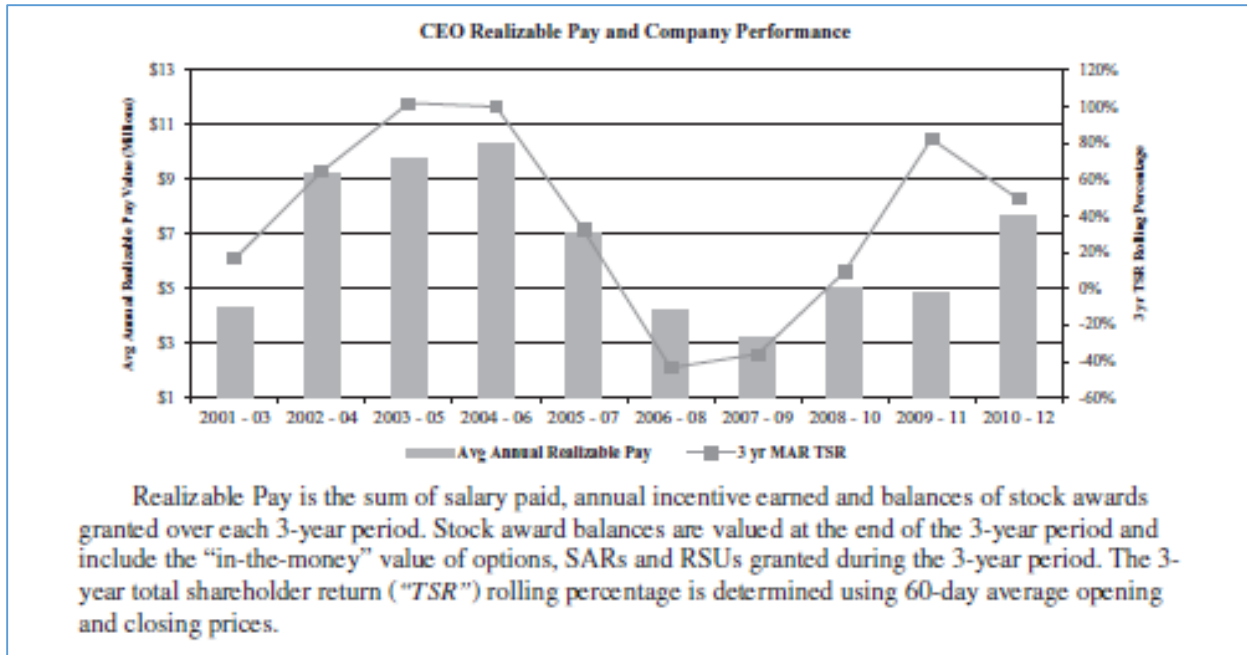


Figure 4. “Market-Value” – Marriott 2013 Proxy Statement

ACTUAL AND REALIZABLE COMPENSATION IN 2012⁽¹⁾

<u>Name</u>	<u>Salary</u>	<u>2012 Option Awards Value at 12/31/2012⁽²⁾</u>	<u>2012 Stock Awards Value at 12/31/2012⁽²⁾</u>	<u>Non-Equity Incentive Award</u>	<u>Other⁽⁴⁾</u>	<u>Total</u>
Mr. Ball	\$993,269	\$0	\$ 0	\$518,486	\$ 0	\$1,511,755
Mr. Davies	384,503	0	0	117,081	200,000	701,584
Dr. Ramachandra	511,788	0	0	178,102	0	689,890
Mr. Ryding	225,962	0	877,282	45,900	421,000	1,570,144
Mr. Werner	454,500	0	0	158,166	0	612,666

⁽¹⁾ For an itemization of the compensation amounts required to be disclosed pursuant to SEC rules, in particular, Item 402 of Regulation S-K, please see the Summary Compensation Table.

⁽²⁾ No value was realized by each named executive officer for the 2012 stock option awards since the awards had exercise prices above Hospira's closing market price of \$31.24 at December 31, 2012.

⁽³⁾ The named executive officers had no performance share units that were earned and/or vested based on 2012 performance. The amount listed for Mr. Ryding represents the value of a 2012 grant of restricted shares, based on the closing market price of \$31.24 at December 31, 2012.

⁽⁴⁾ The amounts for Mr. Davies and Mr. Ryding represent one-time sign-on bonuses to recruit them to Hospira (reported in the "Bonus" column in the Summary Compensation Table).

Figure 5. "Market-Value" – Hospira 2013 Proxy Statement

2012 CEO REALIZABLE PAY COMPARED TO GRANT DATE VALUE				
		Summary	Realizable Value	Realizable Value as %
		Compensation Table	as of 12/31/2012	of Summary Comp. Table
Salary + Other Compensation	\$	1,843,588	\$ 1,843,588	100%
Incentive Compensation	\$	2,484,000	\$ 2,484,000	100%
Value of Restricted Share Units	\$	6,080,033	\$ 5,549,048*	91%
Value of Stock Options	\$	1,520,013	\$ 0**	0%
Total, excluding change in pension	\$	11,727,612	\$ 9,876,612	83%

* Units granted on 1/20/2012 including the earned amount in respect of the first one-year performance period.

** "In the money" value of stock options granted during 2012, based on the year-end stock price of \$8.68. Although these options were not exercisable as of 12/31/2012, they have a 10-year term and could become "in the money" during this term.

Figure 6. "Market-Value" – Alcoa 2013 Proxy Statement

- **Pay and Performance:** An analysis of Chief Executive Officer realizable pay, as a percentage of targeted pay opportunity, is strongly aligned with the change in our TSR over the most recent 1- and 3-year periods. Further, analysis of actual compensation of our executives indicates that they were paid, in the aggregate, at the 66th percentile relative to peers in 2011 (the latest year available for consistent comparisons). This compares with our pro-forma composite performance over the most recent 1-, 2- and 3-year periods that varied by performance metric between the 59th percentile and the 72nd percentile.

Figure 7. “Peer Comparisons” – Stanley Black and Decker 2013 Proxy Statement

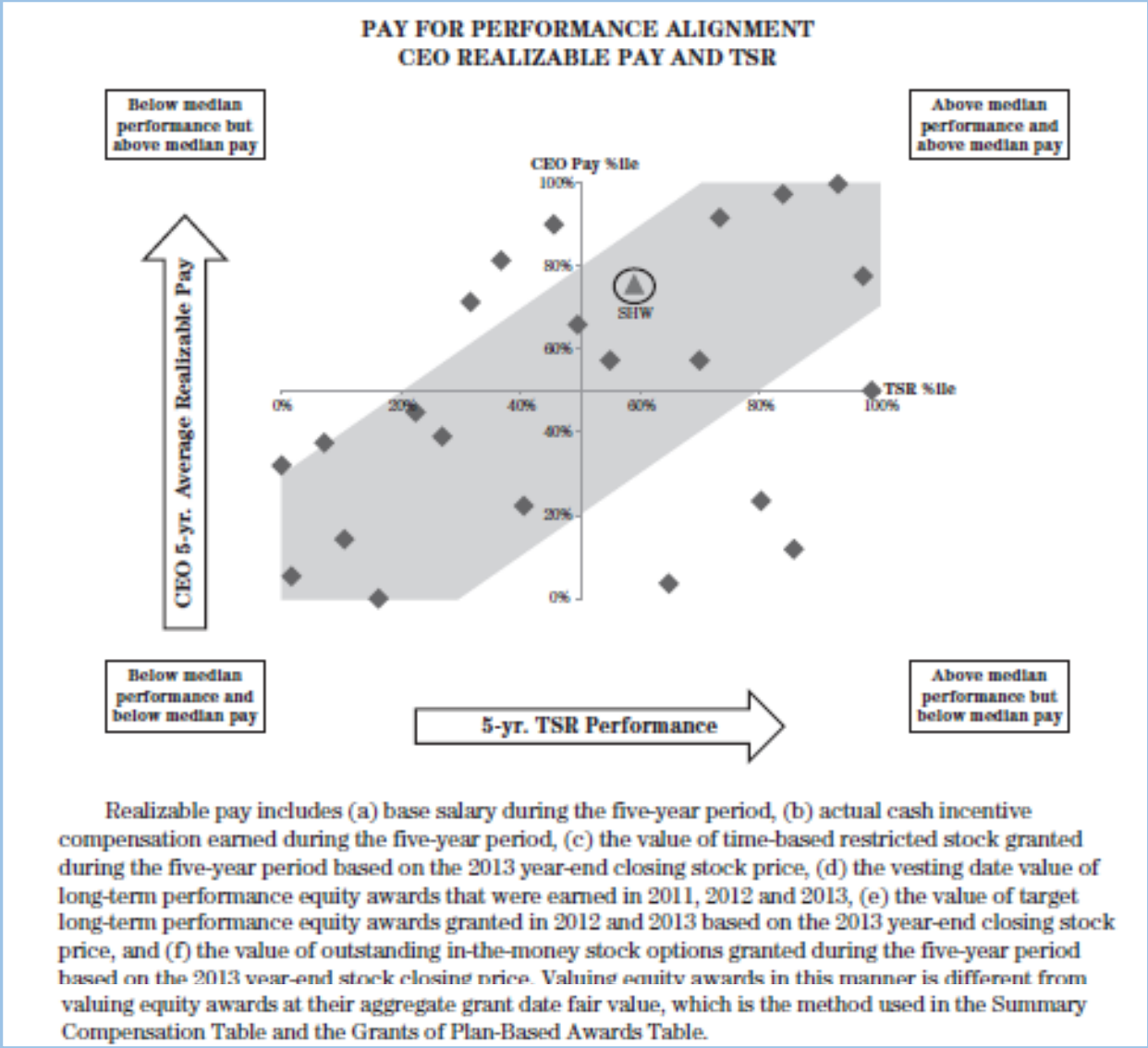


Figure 8. “Peer Comparisons” – Sherwin Williams 2013 Proxy Statement

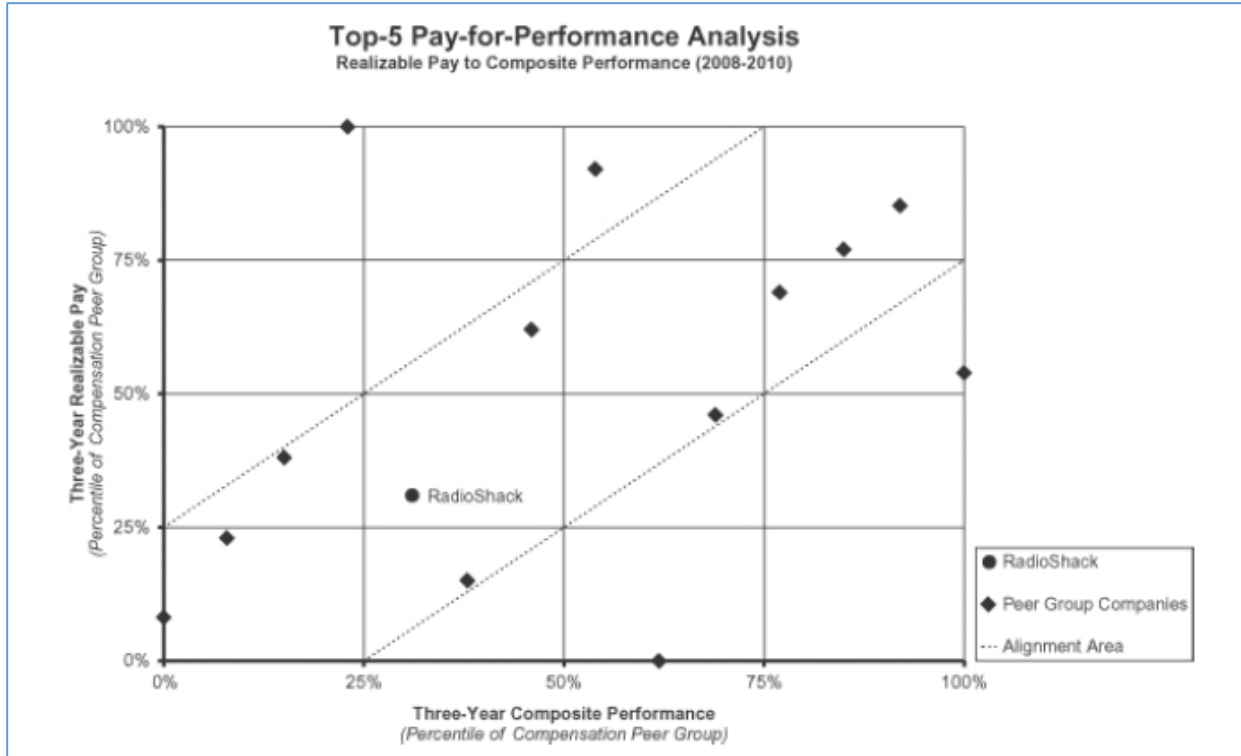


Figure 9. “Peer Comparisons” – RadioShack 2012 Proxy Statement

CONCLUSION

Given the literatures' identification of the influence and breadth of external compensation monitoring in multiple forms, this dissertation further examines the impact of political forces and Say on Pay voting on executive compensation outcomes. First, the effect of political scrutiny on CEO compensation is analyzed using a sample of Federal contractors, which represents a group of firms where politicians yield the most power. Results suggest that Federal contractors with the most visible government contracts that make up significant portions of their revenue have lower CEO compensation, but the efficiency of this compensation structure is debatable as it leaves CEOs with weaker incentives. However, these results are muted when the firm has more bargaining power with the government.

Second, the effects of the external forces of mandated compensation disclosure and shareholding voting requirements on compensation behavior are examined. Results suggest that firms that disclose alternative pay measures in their Pay for Performance discussions do so for different reasons. Although certain measures are characteristic of opportunistic disclosure and others are indicative of informative disclosure, their effects on Say on Pay are similar yet distinct. There is often a significant positive impact of disclosing additional information related to compensation on Say on Pay approval, particularly when combating prior poor Say on Pay support. However, the impact seems to be most significant when peer comparisons are shared, providing evidence of the value of reporting comparative pay.

These results shed light on additional external compensation monitoring in the form of political sensitivity and Say on Pay voting. Additional perspectives on the determinants of executive compensation are provided while revealing additional mechanisms of compensation stakeholder monitoring. The results also provide evidence that the possibility of opportunistic disclosure is an unintended consequence of mandated Say on Pay votes pointing to the importance of standardized Pay for Performance disclosure across firms.

VITA

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